SX-100®
SX-200®

SUPERSWITCH®

VOLUME II
GENERIC ACD

MITEL®

PN 9110-090-002-NA

SX-200

WARNING

This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions manual, may cause interference to radio communications. It has been tested and found to comply with the limits for a Class A computing device pursuant to Subpart J of Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference when operated in a commercial environment. Operation of this equipment in a residential area is likely to cause interference, in which case the user, at his own expense, will be required to take whatever measures may be required to correct the interference.

SX-100

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SX-100®/SX-200®
SUPERSWITCH®
AUTOMATIC CALL DISTRIBUTION SYSTEM
DOCUMENTATION INDEX

1. GENERAL

1.01 This Section lists MITEL Standard Practices which have been issued pertaining to the SX-100/SX-200 Automatic Call Distribution Systems.

2. DOCUMENTATION INDEX

2.01 The complete set of Practices are contained in two volumes as listed in Table 2-1. Volume I basically covers the description and operation of the Systems. Volume II is concerned with the installation aspects of the systems. All installation forms are located in Volume III. All troubleshooting information is contained in Volume IV.

2.02 Sections commencing with MITL9105- and MITL9110- contain information specific to the SX-100/SX-200 Systems respectively, while those commencing with MITL9105/9110- embrace both types of Systems.

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TABLE 2-1
PRACTICE INDEX

VOLUME I	
Section No.	**Title**
MITL9105/9110-090-000-NA	Documentation Index
MITL9105/9110-090-100-NA	General Description
MITL9105/9110-090-105-NA	Feature and Services Description
MITL9105/9110-090-106-NA	Feature and Services Description
MITL9105/9110-090-107-NA	Feature and Services Description
MITL9105/9110-090-150-NA	Physical Description and Ordering Information
MITL9105/9110-090-180-NA	Engineering Information
MITL9105/9110-090-212-NA	Multi-Digit Toll Control
MITL9105/9110-090-213-NA	Automatic Route Selection
MITL9105/9110-090-220-NA	Speed Call
MITL9105/9110-090-222-NA	Automatic Call Distribution Description
MITL9105/9110-090-315-NA	Attendant Console Description
MITL9105/9110-090-450-NA	Traffic Measurement
MITL9105/9110-090-451-NA	Station Message Detail Recording
MITL9105/9110-090-500-NA	General Maintenance Information
VOLUME II	
Section No.	**Title**
MITL9105/9110-090-000-NA	Documentation Index
MITL9105/9110-090-200-NA	Shipping, Receiving and Installation
MITL9105/9110-090-210-NA	System Programming
MITL9105/9110-090-215-NA	Installation Test Procedures
MITL9105/9110-090-320-NA	Extension Test Procedures
VOLUME III	
INSTALLATION FORMS	
VOLUME IV	
Section No.	**Title**
MITL9105/9110-090-350-NA	Troubleshooting

SX-100* AND SX-200*
SUPERSWITCH*
AUTOMATIC CALL DISTRIBUTION SYSTEM
SHIPPING, RECEIVING AND INSTALLATION INFORMATION
GENERIC ACD

CONTENTS PAGE

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LIST OF ILLUSTRATIONS

LIST OF TABLES

1. INTRODUCTION

General

1.01 This Section provides general identification, installation, shipping, receiving and cabling information for the SX-100 and SX-200 ACD Systems. The systems consist of two major components: the equipment cabinet, containing the switching equipment and power supply; and the attendant console(s).

Reason for Issue

1.02 This Section has been issued to provide information concerning the ACD system.

Documentation

1.03 Table 1-1 lists all MITEL practices, associated with the ACD System.

SUPERSET 4

1.04 For information on the SUPERSET 4 see Section MITL9105/9110-090-107-NA.

SUPERSET 3

1.05 For information on the SUPERSET 3 see Section MITL9105/9110-090-106-NA.

TABLE 1-1
DOCUMENTATION

Document No.	Title	Applicable to SX-100	SX-200
MITL9105/9110-090-100-NA	General Description	*	*
MITL9105/9110-090-105-NA	Features Description	*	*
MITL9105/9110-090-150-NA	Physical Description and Ordering Information	*	*
MITL9105/9110-090-180-NA	Engineering Information	*	*
MITL9105/9110-090-200-NA	Shipping, Receiving and Installation	*	*
MITL9105/9110-090-210-NA	System Programming	*	*
MITL9105/9110-090-212-NA	Multi-Digit Toll Control	*	*
MITL9105/9110-090-213-NA	Automatic Route Selection	*	*
MITL9105/9110-090-215-NA	System Test Procedures (Installation)	*	*
MITL9105/9110-090-220-NA	Speed Call	*	*
MITL9105/9110-090-222-NA	Automatic Call Distribution Description	*	*
MITL9105/9110-090-315-NA	Attendant Console Description	*	*
MITL9105/9110-090-320-NA	Station Test Procedures	*	*
MITL9105/9110-090-350-NA	Troubleshooting Instructions	*	*
MITL9105/9110-090-450-NA	Traffic Measurement	*	*
MITL9105/9110-090-451-NA	Station Message Detail Recording	*	*
MITL9105/9110-090-500-NA	General Maintenance Information	*	*

2. IDENTIFICATION

General

2.01 The SX-100 and SX-200 are providing the following capacities:

- **SX-100:** Capacity of 160 ports with 112 ports available for lines, trunks and additional receivers.
- **SX-200:** Capacity of 256 ports with 208 ports available for lines, trunks and additional receivers.

2.02 The systems are electrically compatible with most existing station, key telephone, Private Branch Exchange (ACD) and Central Office (CO) equipment. The ACD's provide:

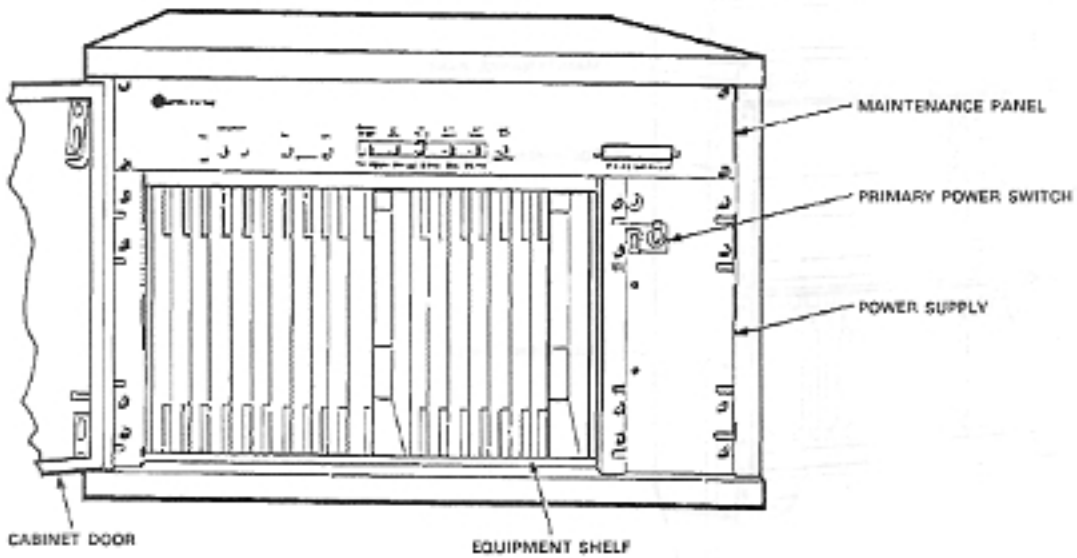
- The use of a flexible numbering plan.
- The simultaneous use of DTMF and rotary dial stations.
- Optional use of attendant consoles - two maximum.
- Extensive selection of standard and optional features.
- A data port facility for traffic analysis and other requirements.
- Freedom from scheduled maintenance.
- Automatic diagnostics.
- Six power fail transfer trunks (SX-100).
- Twelve power fail transfer trunks (SX-200).
- Optional reserve power supply.
- SUPERSET 4.
- SUPERSET 3.

Equipment Cabinet, SX-100

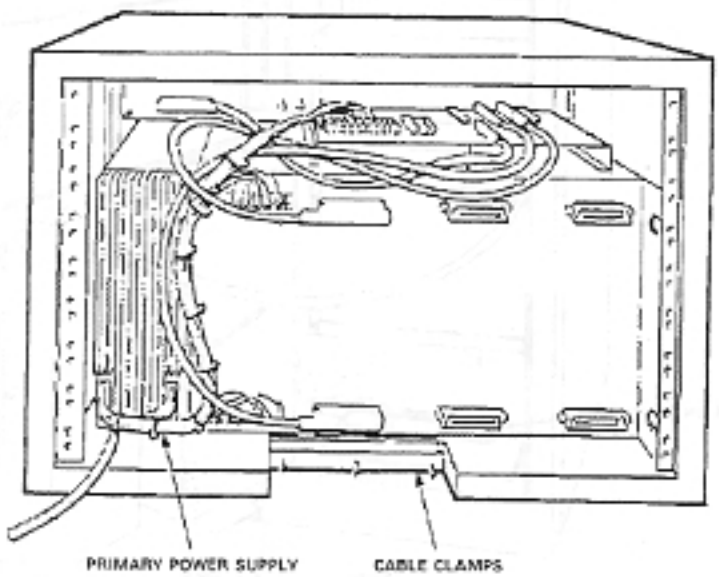
2.03 The SX-100 equipment cabinet (Figure 2-1) consists of a metal frame enclosed by back and top panels. Access to the equipment shelf is provided by the front door of the cabinet. The rear panel allows access to the line and trunk cable plugs.

Equipment Cabinet, SX-200

2.04 The SX-200 equipment cabinet (Figure 2-2) consists of a metal frame which is enclosed by side and top panels. Access to the equipment shelves is provided by the front door of the cabinet. The hinged rear panels hold the power supply and allow access to the line and trunk cable plugs.



FRONT VIEW

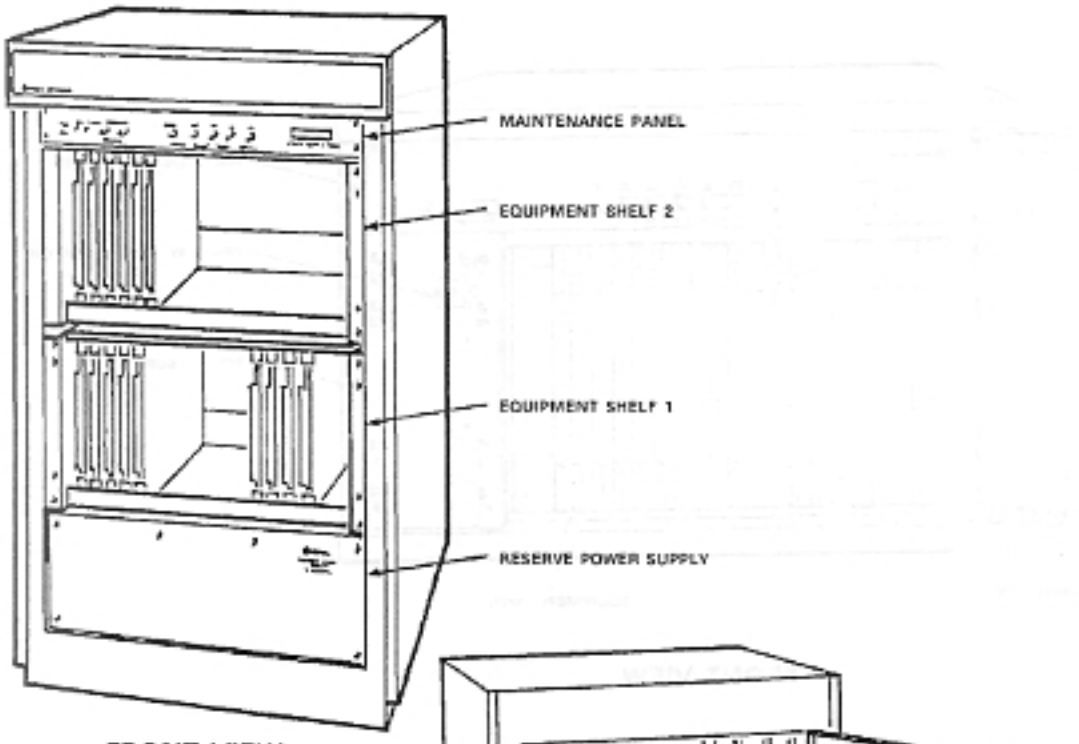


REAR VIEW

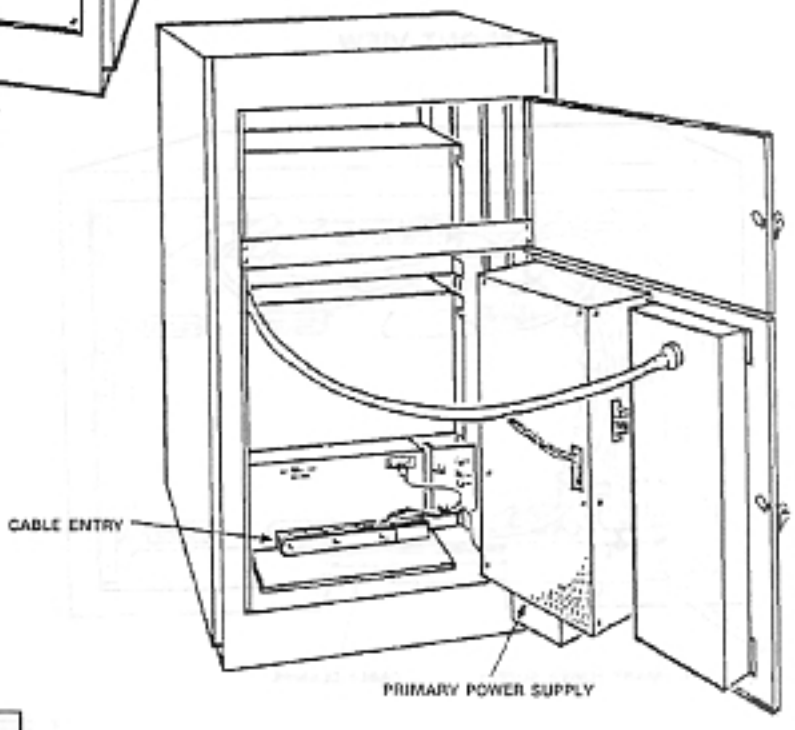
WEIGHT	HEIGHT	WIDTH	DEPTH
70 lb (31.8 kg)	16.62 in. (422 mm)	25.0 in. (635 mm)	18.5 in. (470 mm)

X5811

Figure 2-1 SX-100 Equipment Cabinet



FRONT VIEW

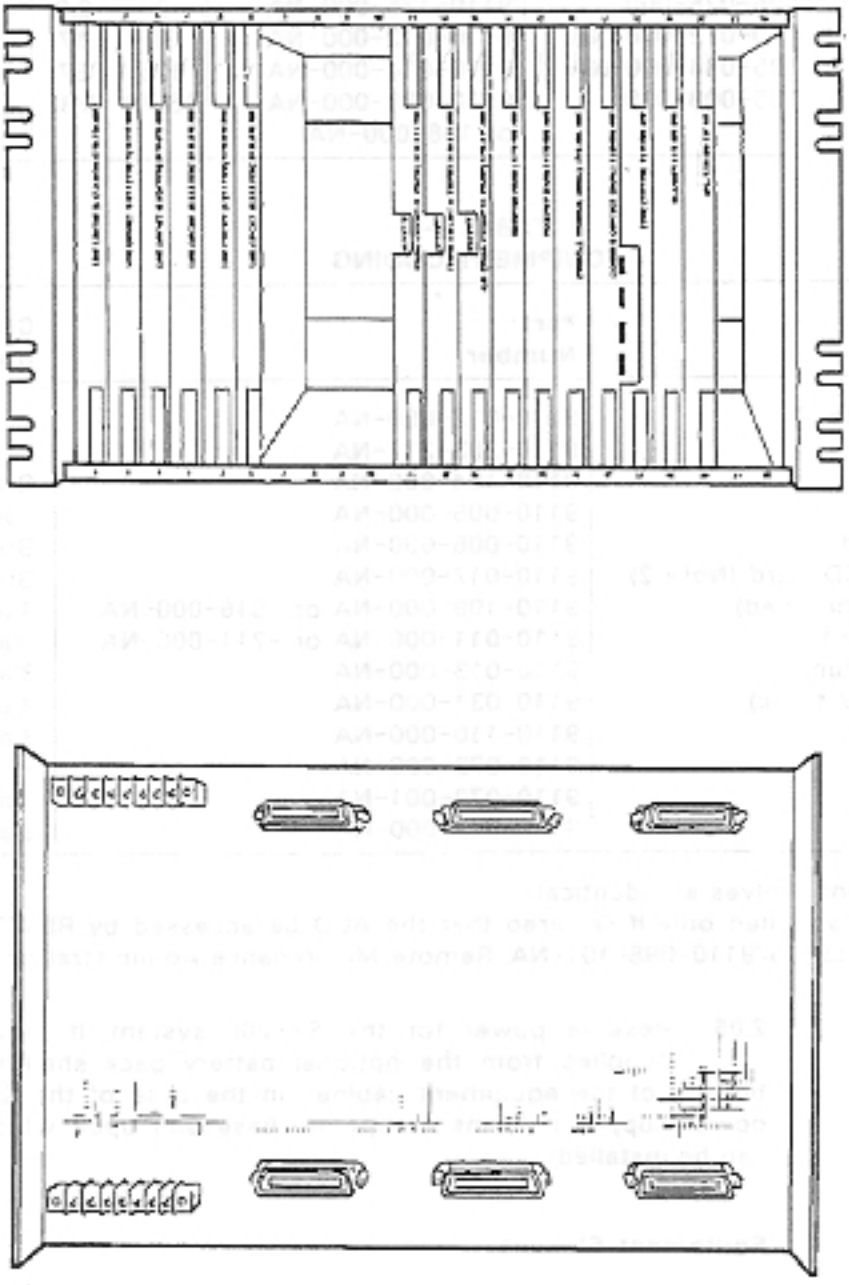


WEIGHT	HEIGHT	WIDTH	DEPTH
290 lb (131.7 kg)	38 in. (900 mm)	23.5 in. (600 mm)	27.5 in. (700 mm)

REAR VIEW

X5610

Figure 2-2 SX-200 Equipment Cabinet



XS612

Figure 2-3 Equipment Shelf

TABLE 2-1
PHYSICAL CHARACTERISTICS

Shelf Type	SX-100 Part Number	SX-200 Part Number	Weight lb	Weight kg	Maximum No. Circuit Cards
Maintenance Panel	9105-025-000	9110-125-000-NA	2	0.9	-
Equipment Shelf	9110-012-000-NA	9110-012-000-NA	38	17	21
Reserve Power	9105-014-000-NA	9110-014-000-NA	125	57	-
Primary Power	9105-008-000	9110-008-000-NA or 108-000-NA	16/70	7/32	-

TABLE 2-2
EQUIPMENT CODING

Type	Part Number	Card Extractor Color Code
Equipment Shelf (Note 1)	9110-012-000-NA	-
IPC Card	9110-203-217-NA	Red
Scanner Card	9110-104-000-NA	Orange
Tone Control Card	9110-005-000-NA	Yellow
Console Control Card	9110-006-000-NA	Green
Remote Control - ACD Card (Note 2)	9110-017-000-NA	Green
Receiver Card (Dual or Quad)	9110-109-000-NA or -016-000-NA	Blue
CO Trunk Card (4 trunk)	9110-011-000-NA or -211-000-NA	Black
E&M Trunk Card (2 trunk)	9110-013-000-NA	Black
DID/Tie Trunk Card (2 trunk)	9110-031-000-NA	Black
Line Card (8 station)	9110-110-000-NA	Black
RAC Module	9110-073-000-NA	-
RAC Card 1 module	9110-072-001-NA	Black
RAC Card 2 modules	9110-072-000-NA	Black

Note: 1. All equipment shelves are identical.
2. The RCP is supplied only if required that the ACD be accessed by RMAT facilities (see Section MITL9105/9110-098-101-NA, Remote Maintenance Administration and Test System).

2.05 Reserve power for the SX-200 system, if required, may be supplied from the optional battery pack shelf located at the bottom of the equipment cabinet. In the case of the SX-100 reserve power supply, it forms a separate base unit upon which the SX-100 can be installed.

Equipment Shelves

2.06 The SX-100 is equipped with one shelf, but the SX-200 may be equipped with one or two equipment shelves depending on the number of lines and trunks required. Each equipment shelf (Figure 2-3) is 10.75 in. (273 mm) high, 19 in. (485 mm) wide and 16.375 in. (415 mm) deep. The shelves are mounted in the equipment cabinet with the backplane assembly towards the rear of the cabinet. The shelves are

held in position by mounting screws which locate the shelves in the main frame.

2.07 The physical characteristics and part numbers of the shelves, power supplies and maintenance panel are given in Table 2-1. The weight for each shelf is for a shelf containing a full complement of circuit cards.

2.08 The equipment shelves used in the SX-100 and the SX-200 are identical. Figure 2-3 shows two views of an equipment shelf.

2.09 The equipment shelves hold up to 20 circuit cards. Each card plugs into a connector mounted on the shelf backplane. A locking bar assembly which passes through the sides of the shelf ensures that the circuit packs are seated correctly in the backplane connectors.

2.10 A number of card positions within each shelf are reserved for control cards. These card positions are identified by color-coded identification strips along the top and bottom edges of the shelf. Only cards with locking clips of the same color as the identification strip should be plugged into that card position. Circuit card and/or system damage may otherwise occur.

2.11 Card positions 14, 13, and 12 on equipment shelf 1, may be used for line, trunk or receiver cards. These positions are marked with a blue and black identification strip, indicating that any card coded with either of the identification color codes may be used in these positions.

2.12 Line or trunk cards can be placed in any position identified with black color-coded strips. It is recommended that line cards be placed in the lowest numbered card positions and trunk cards in the highest card positions for the following reasons:

- The maintenance test line is permanently wired to card position 1, hardware position 001.
- Separation of line and trunk cards allow ease of identification of card type during installation and maintenance.
- Ease of system programming.

Note: If more than one receiver card is used the second receiver card MUST be placed in card position 14, the third in position 13, and the fourth in position 12. It is therefore recommended that these card positions be used for trunk cards only when all other card positions are in use.

Circuit Cards

2.13 The circuit cards (Figure 2-4) used in the equipment shelves measure 10 in. (254 mm) high, 13 in. (330 mm) deep, and are manufactured from fiberglass board. The light-emitting diodes (LED's)

mounted at the front of each card indicate the operational status of the card. The transparent front panel protects the LED's while allowing their status to be observed.

2.14 On the front panel of each card, is the card part number and its type. Cards which must not be removed or inserted while the system power is on carry a Caution notice as shown in Figure 2-4.

2.15 Each card is equipped with two card extractors which enable the card to be easily removed. In the locked position the card extractors, in conjunction with the locking bar, ensure that the circuit cards are held firmly in position.

Equipment Shelf and Card Identification

2.16 Table 2-2 lists all shelf and card part numbers, and color codes.

Features and Services

2.17 The features and service codes are entered into the system memory through a console. No wiring or strapping is required when assigning features.

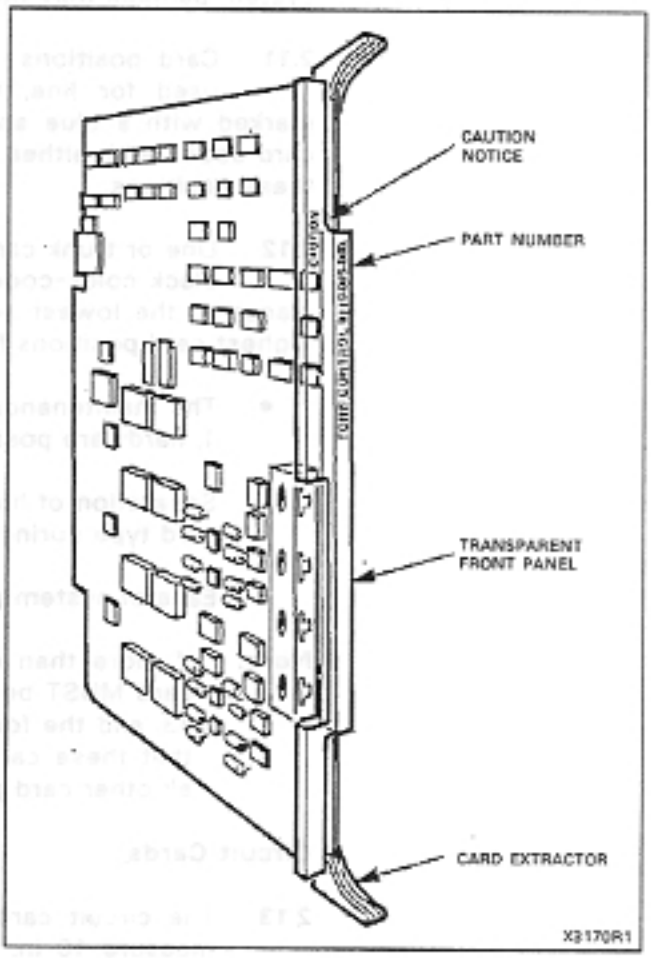


Figure 2-4 Typical Circuit Card

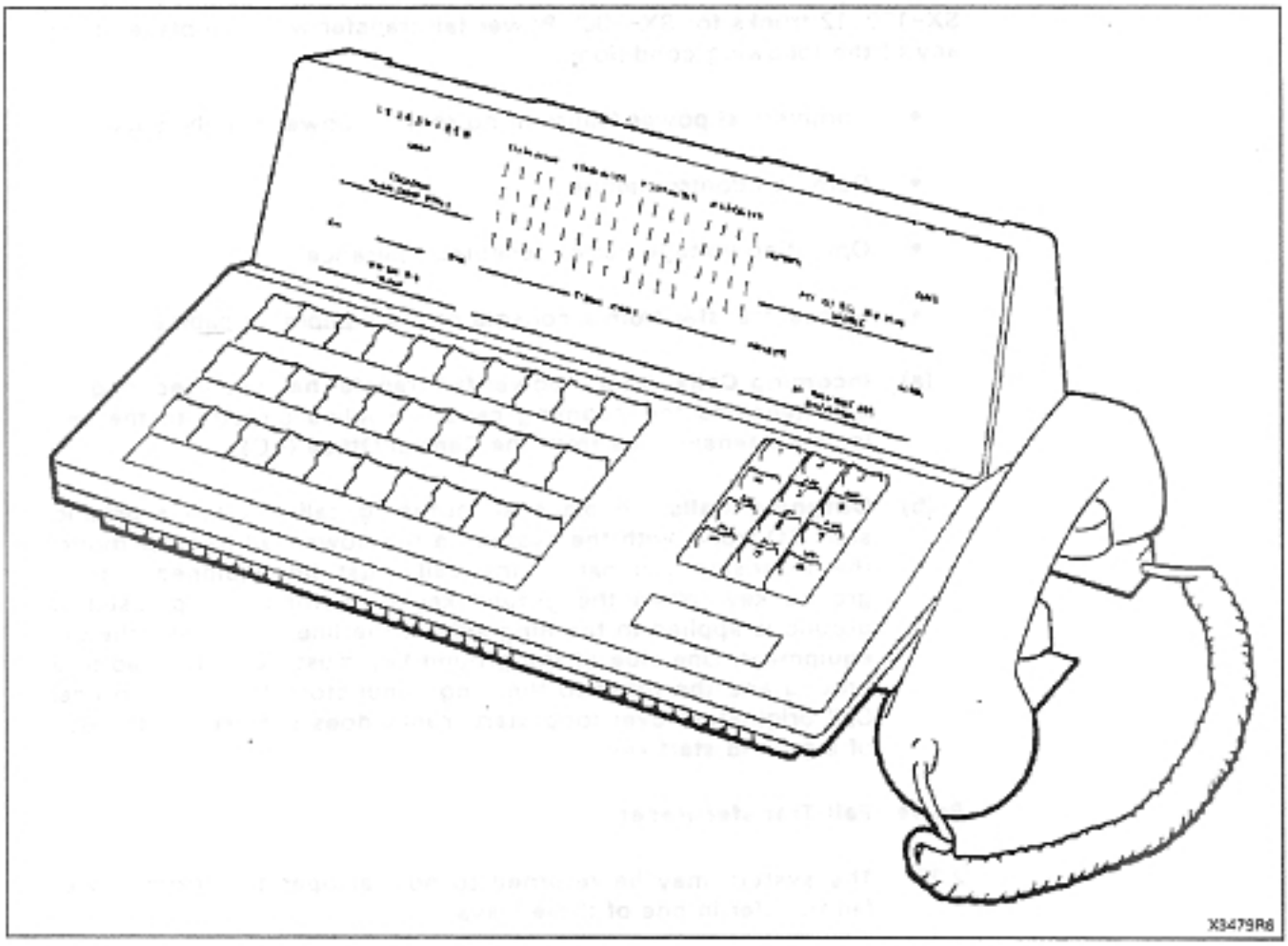


Figure 2-5 Attendant Console

Attendant Console

2.18 The attendant console (Figure 2-5) is a self-contained unit, connected to the equipment cabinet by a plug-ended 25-pair cable.

2.19 The console is equipped with two sets of handset/headset jacks. These jacks will accept all standard handsets or headsets presently in general use.

Connecting Cables

2.20 All connections to the attendant console and the equipment cabinet are made using plug- or connector-ended 25-pair cables.

Power Fail Transfer

2.21 In the event of a major alarm condition, the power fail transfer relays located on the Power Fail Transfer card, will connect Central Office trunks to selected station lines (maximum 6 trunks for

SX-100, 12 trunks for SX-200). Power fail transfer will take place under any of the following conditions:

- Commercial power failure (if no reserve power supply is used).
- Common control failure.
- Operating voltage out of accepted tolerance.
- Manual transfer from a console or the equipment cabinet.

(a) **Incoming Calls.** After a power fail transfer has occurred, ringing of extensions for incoming calls is applied directly to the selected extension line from the Central Office (CO).

(b) **Outgoing Calls.** To place an outgoing call through a ground start CO trunk, with the system in the power fail transfer mode, the extension originating the call must be equipped with a ground key. When the ground key is momentarily pressed, a ground is applied to the Ring side of the line, energizing the CO equipment. One side of the ground key must be connected to a ground and the other to the Ring conductor of the station line. Call origination over loop start trunks does not require the use of a ground start key.

Power Fail Transfer Reset

2.22 The system may be returned to normal operation from power fail transfer in one of three ways:

(a) **Major Alarm:** If the system was placed in the power fail transfer mode because of a major alarm condition, it will return to normal operation and turn off the major alarm lamp when the alarm condition is corrected.

(b) **Manual Reset:** When the system has been placed in the power fail transfer mode by operation of the switch, the major alarm lamp will light, indicating that transfer has taken place. Setting the transfer switch to NORMAL will reset the system to normal operation and turn off the alarm lamp if the alarm condition has been corrected. If the alarm condition has not been corrected, the alarm lamp will remain lit, indicating that the system has remained in the power fail transfer mode.

(c) **Reset from Commercial Power Failure:** The system will automatically return to normal operation when commercial power is restored.

Note: When the system returns to normal operation from the power fail transfer mode, all connections established through the power fail transfer circuits will be maintained until the completion of the calls.

Test Line

2.23 The test line, permanently assigned to hardware position 001, has the Tip and Ring connections wired to the two terminals on the face of the maintenance panel. The service can:

- seize individual trunks
- seize individual receivers
- seize individual speech paths
- initialize card slot
- busy out selected receivers, trunks or speech paths
- clear all alarms and raise associated busy-out conditions
- reset the system
- initiate a system dump
- control the printer.

Reserve Power Supply

2.24 The optional reserve power supply (in the form of batteries and charging system) is housed in the SX-200 equipment cabinet or in a package that forms a base for the SX-100 cabinet. The power supply is designed to maintain system operation for a minimum of two hours in the event of main power failure.

Paging, Dictation, and Music on Hold Equipment

2.25 All paging, dictation and music on hold equpiment is located external to the ACD. This equipment should be located in an environment specified by the individual supplier and connected to the ACD through the cross-connect field.

Night Relays

2.26 Four relays are provided for use during night service. One is operated permanently during night service, and the other three may be assigned to various trunks to ring night bells. Power, supplied from the supply and required to operate night bells, must be connected at the cross-connect field.

3. SHIPPING AND RECEIVING

Introduction

3.01 This Part describes the procedures to be used when shipping or receiving the Electronic ACD equipment.

System Shipment

3.02 The ACD cabinet is shipped in a single carton containing the equipment cabinet. The consoles and reserve power supply, if required, are packaged and shipped separately from the system equipment package.

4. PACKAGING

System Package

4.01 The equipment is shipped complete with one shelf and with some cards in position. The equipment cabinet is enclosed in a polyethylene sheet and positioned on the shock-absorbant shipping pallet. A styrofoam sheet is placed around and on top of the cabinet to protect it from damage, and the complete assembly encased in a triwall sleeve. Four transportation straps are then fastened to the pallet to prevent any movement of the cabinet package. The tri-wall cap is placed over the sleeve and the complete assembly secured to the shipping pallet by two metal retaining straps. Figure 4-1 and 4-2 respectively show the packaging arrangements for the SX-100 and SX-200.

Consoles

4.02 Each console is wrapped in a polyethylene sheet and placed in a cardboard packing carton and protected with shock-absorbant foam inserts. The handset and cradle are placed in bags and inserted in the corners of the box at one end. The console manual is placed at the other end of the box, and the Extension Features Operation booklets are distributed in the box to fill the available space. The completed package is secured with fiberglass tape (Figure 4-3).

Equipment Shelves

4.03 Equipment shelves, when shipped separately, are packaged in a similar manner. A shelf, with all cards removed, is enclosed in a cardboard protector to prevent damage to the shelf backplane. The protected shelf is then wrapped in a polyethylene sheet placed in a formed foam insert. The complete assembly is finally encased in a packing carton and secured by fiberglass tape (Figure 4-4).

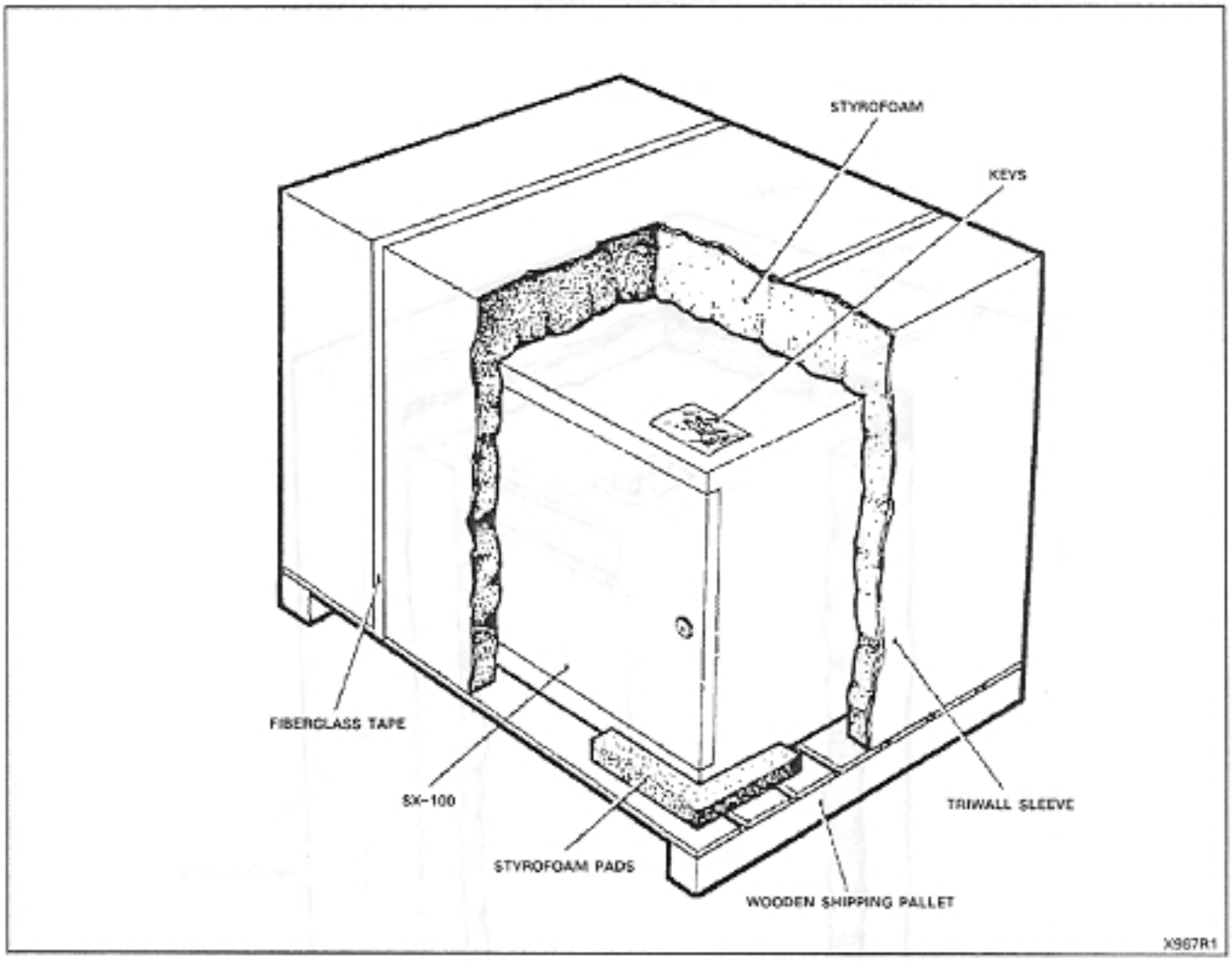


Figure 4-1 SX-100 System Packaging

Reserve Power Shelf

4.04 The method of packaging the reserve power shelf is the same as for equipment shelves, except a heavy duty commercial packing carton is used in place of the regular packing cartons, due to the weight of the battery packs in the reserve power shelf.

Printed Circuit Cards

4.05 All printed circuit cards, if shipped separately, are packaged as shown in Figure 4-5. If a larger number of circuit cards are to be shipped, they are individually packed and shipped in groups of ten per carton.

5. DELIVERY CHECK

5.01 At the time of delivery at the installation site, all items delivered must be checked against the order form and packaging slip. Any discrepancies must be reported immediately.

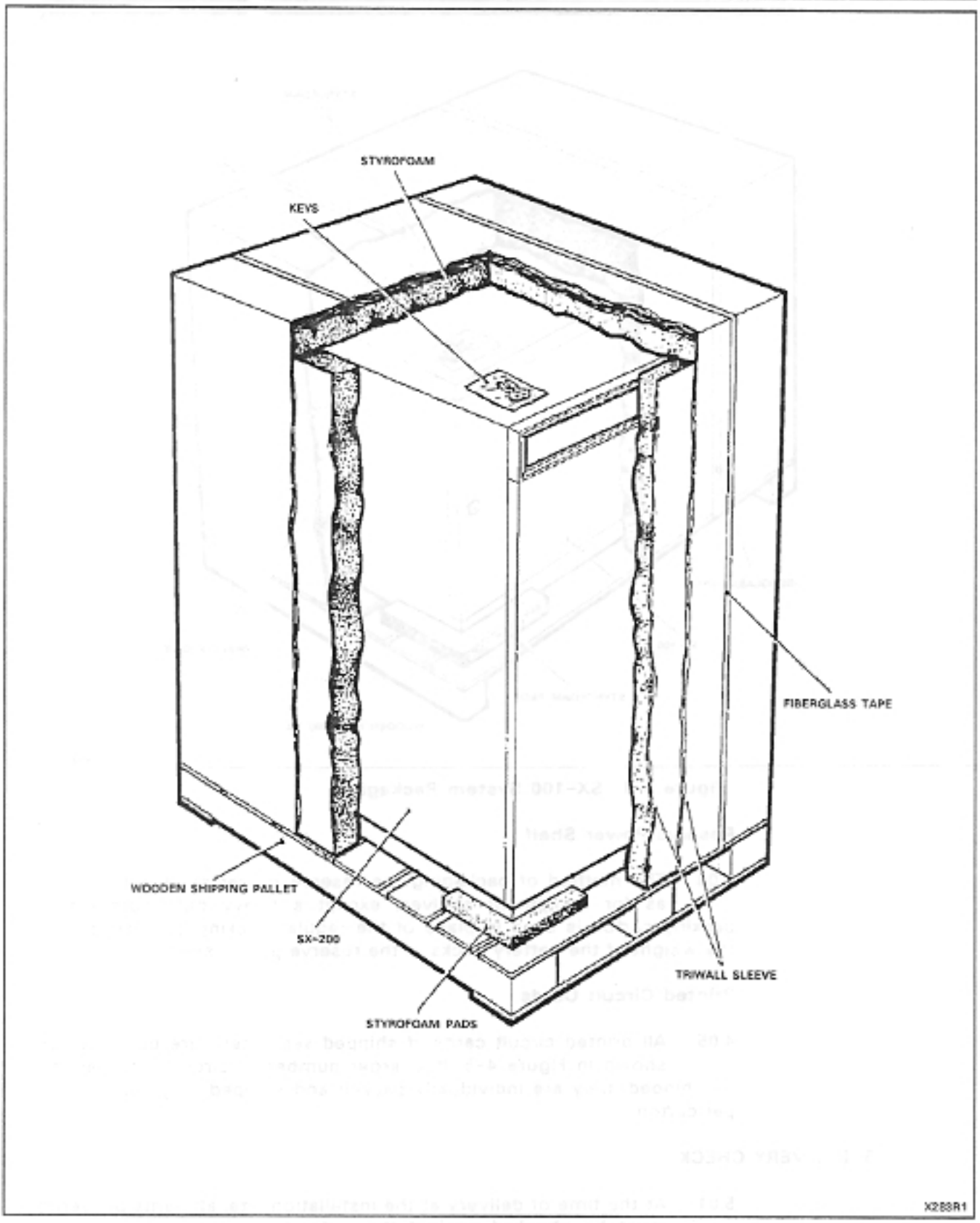
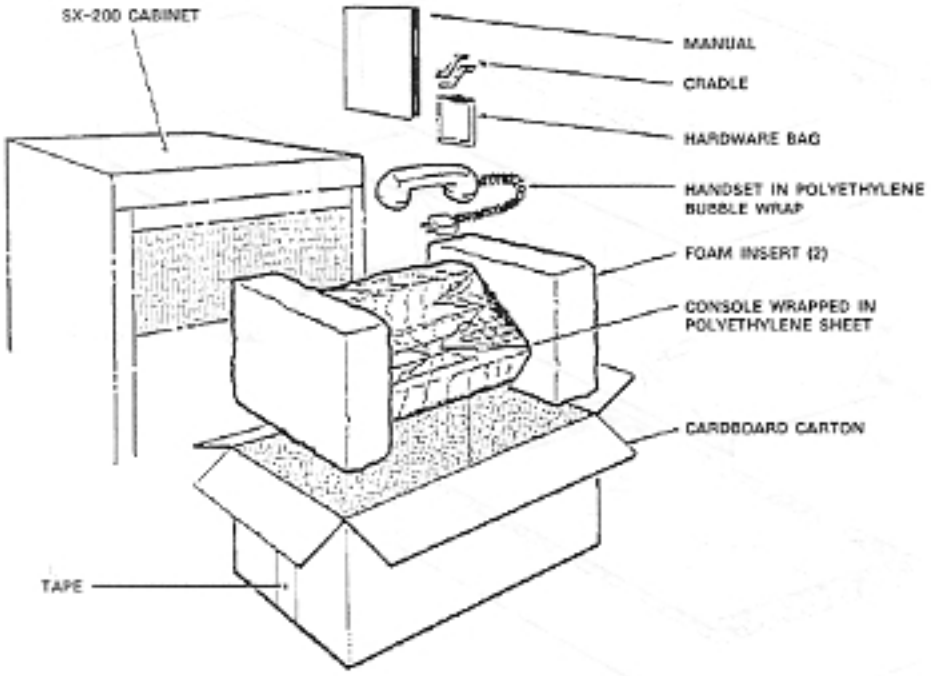
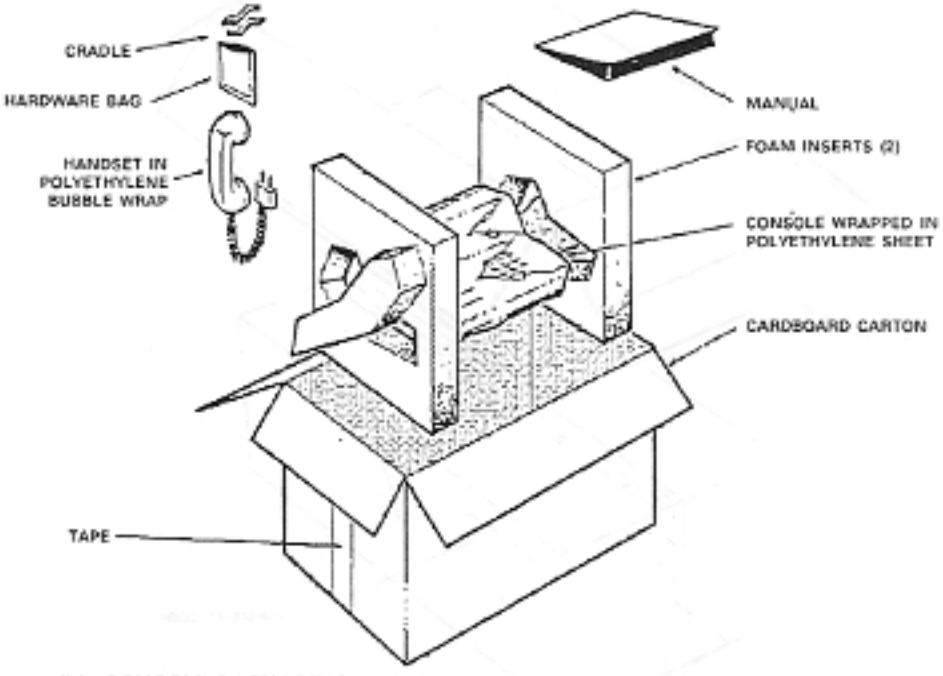


Figure 4-2 SX-200 System Packaging



(a) CONSOLE PACKAGING –
(FOR SHIPMENT IN SX-200 1 – SHELF CABINET)



(b) CONSOLE PACKAGING –
(FOR SEPARATE SHIPMENT)

X284R2

Figure 4-3 Console Packaging

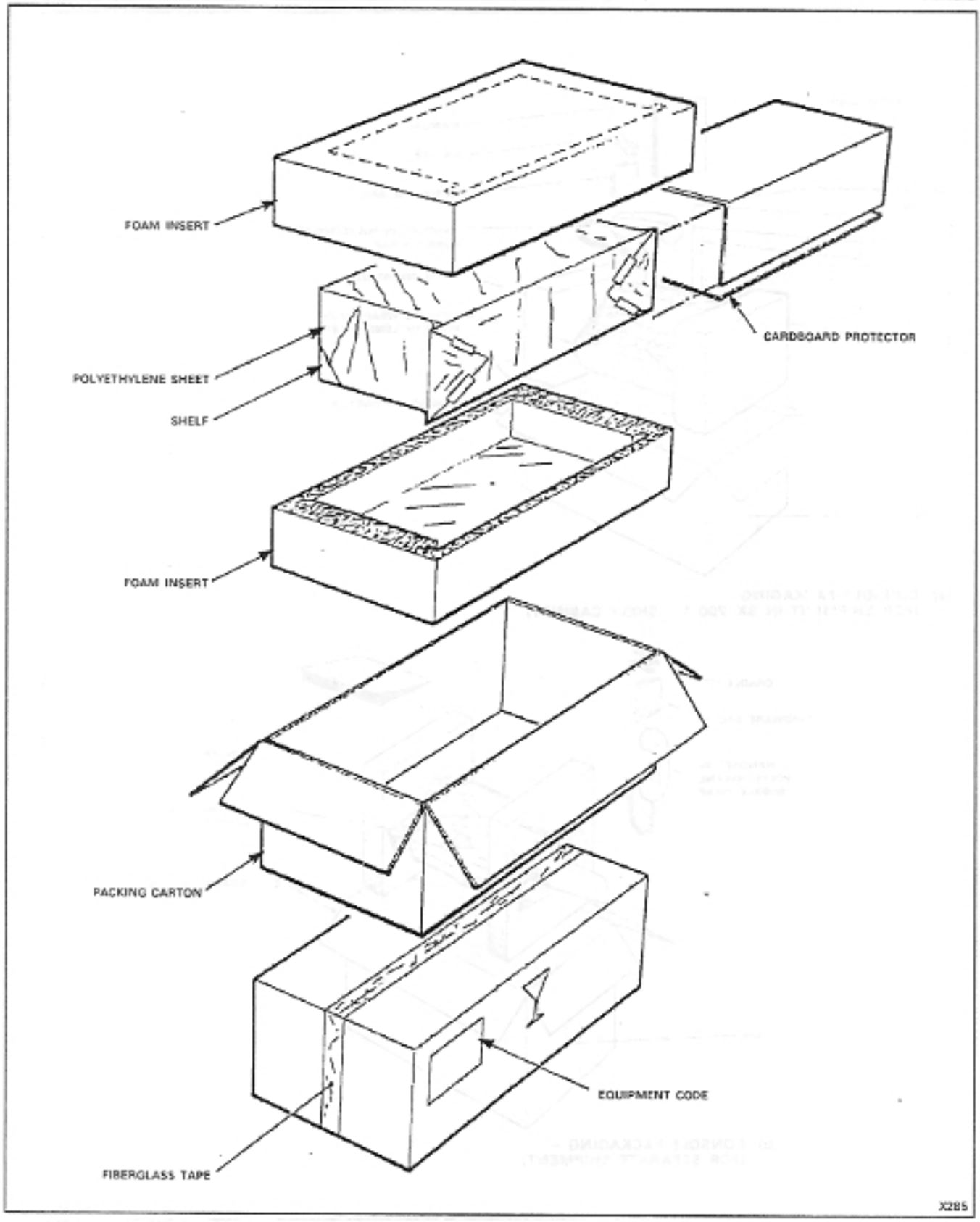


Figure 4-4 Equipment Shelf Packaging

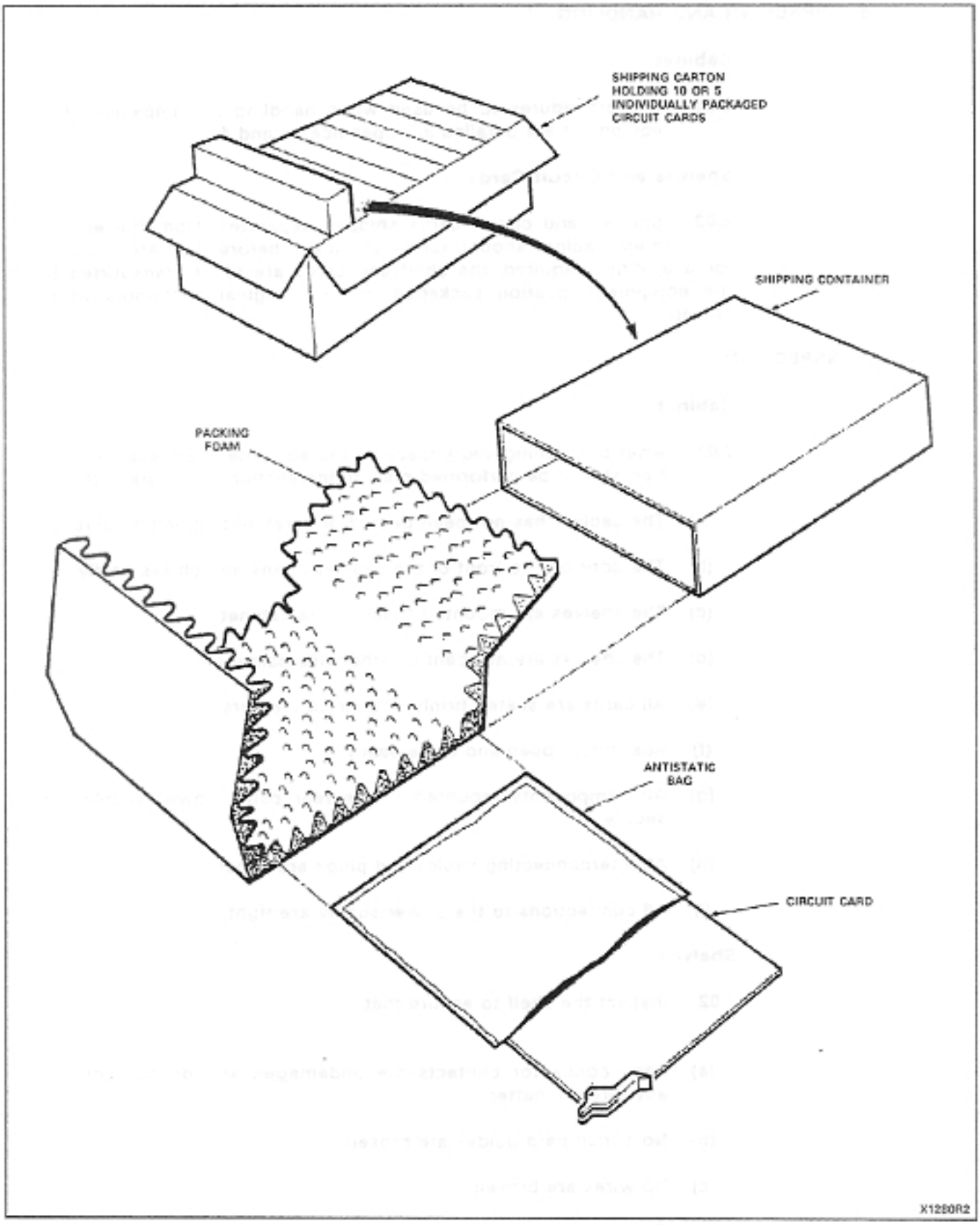


Figure 4-5 Circuit Card Packaging

6. UNPACKING AND HANDLING

Cabinet

6.01 The procedures to be used when handling and unpacking the equipment are detailed in Appendices 3 and 4.

Shelves and Circuit Cards

6.02 Shelves and circuit cards shipped separately from the equipment cabinet should not be unpacked before they are required for use. When required, the shelf and cards are to be transported to the equipment location packaged in their original containers when possible.

7. INSPECTION

Cabinet

7.01 After positioning and unpacking the equipment, a visual inspection should be performed prior to installation to ensure that:

(a) The cabinet has not been dented or scratched during shipment.

(b) The door on the front of the cabinet opens and closes easily.

(c) The shelves are mounted firmly in the cabinet.

(d) The shelves are not bent or otherwise damaged.

(e) All cards are seated firmly in their connectors.

(f) Rear doors open and close easily.

(g) All components mounted in the rear panel power supply are secure.

(h) All interconnecting cables and plugs are secure.

(j) All connections to the power supply are tight.

Shelves

7.02 Inspect the shelf to ensure that:

(a) Edge connector contacts are undamaged and do not contain any foreign matter.

(b) No circuit card guides are broken.

(c) No wires are broken.

(d) The backplane is not cracked.

(e) No connector pins are broken or bent.

Cards

Caution: Handle Circuit Cards by their edges only. Handling the board faces or components may cause damage. At all times wear a static-preventing wrist strap.

7.03 If printed circuit cards are shipped separately from the equipment, inspect each circuit card to ensure that:

(a) The fiberboard is not cracked.

(b) No loose leads or components are apparent.

(c) The card front panel is not broken. Circuit cards shipped in the equipment do not require individual inspection unless equipment shelf damage has been found.

Defective Items

7.04 If any defective item is found, it should be tagged and returned to the supplier in accordance with accepted procedures (see Part 8).

8. REPACKING FOR SHIPMENT

8.01 When the ACD equipment is shipped from one location to another, all items must be packaged to prevent damage. Figures 4-1 through 4-5 show how the equipment was originally packaged. This method of packaging should be followed as closely as possible.

8.02 If the original packaging material is no longer available, the returned parts should be wrapped in several layers of air-cushion type wrap, placed in a suitable container, and surrounded with paper to minimize movement of the items.

9. INSTALLATION REQUIREMENTS

Environmental Requirements

9.01 The ACD equipment cabinet may be installed in any location which fulfills the requirements of 9.02, and is within the following temperature and humidity limits:

- Temperature 0-40°C (32-104°F)
- Relative Humidity 10-90% (noncondensing)

Floor Space

9.02 The minimum floor space for installation and subsequent maintenance of the SX-100 and SX-200 ACD's is shown in Figures 9-1 and 9-2 respectively.

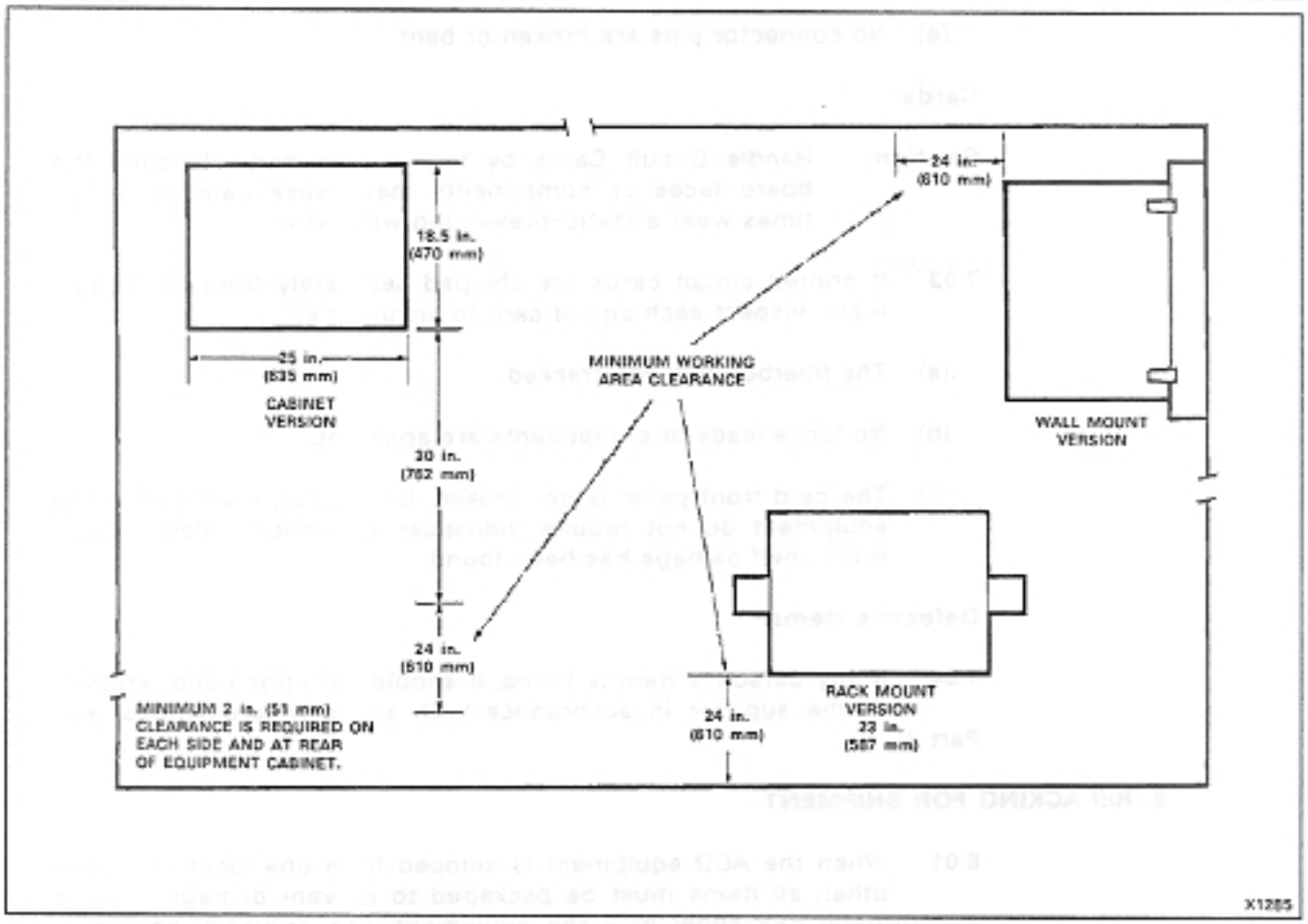


Figure 9-1 SX-100 Minimum Equipment Cabinet Floor Space Requirements

Equipment Cabinet Location

9.03 The following requirement must be met when selecting a location for the ACD equipment. For cooling purposes the ACD cabinet equipments use natural air convection flow. For this reason the bottom areas of the cabinets must be allowed free air flow and must not be obstructed, for example, by rug pile blocking the air vent entries.

The location MUST BE:

- Dry and clean
- Well ventilated
- Well lit
- Easily accessible.

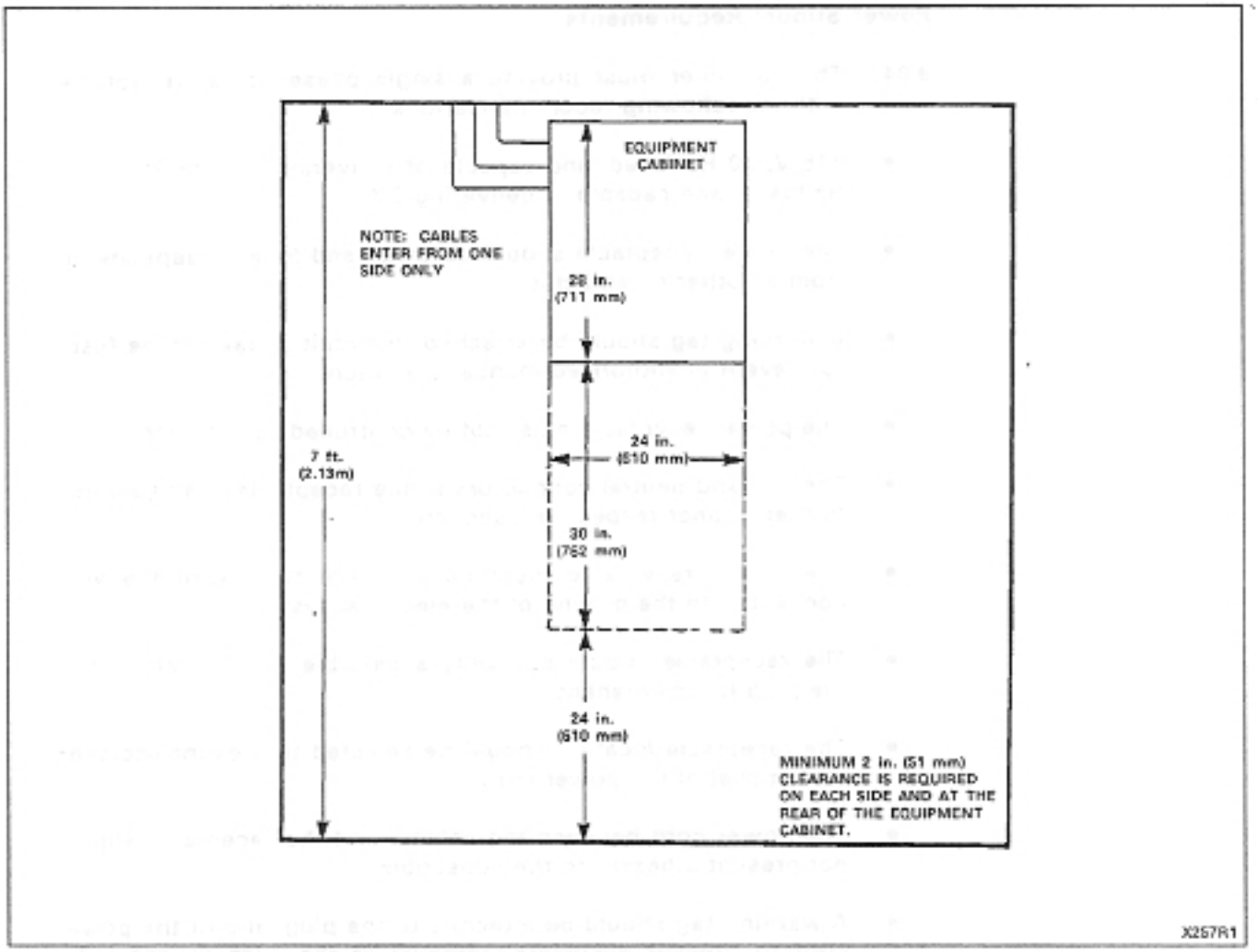


Figure 9-2 SX-200 Minimum Equipment Cabinet Floor Space Requirements

The location MUST NOT BE:

- Near a sprinkler system, sweating pipes, steam pipes or steam vents
- In areas with extreme heat or cold
- In areas where corrosive fumes or exhaust from machinery is present
- In passageways used for moving equipment
- Next to a reproducing or copying machine. A minimum clearance of 10 feet (3 m) must be provided and the room should be ventilated by an exhaust fan if the reproducing machine is not equipped with a filtering system.

Power Supply Requirements

9.04 The customer must provide a single phase power receptacle, with the following recommendations:

- 115 V, 60 Hz fused, and capable of delivering 4 A; or 250 V, 50 Hz fused, and capable of delivering 2 A.
- The power receptacle should be wired and fused independently from all other receptacles.
- A warning tag should be attached to circuit-breaker-type fuses to prevent unauthorized manual operation.
- The power receptacle must not be controlled by a switch.
- The live and neutral conductors at the receptacle shall be wired to their proper respective connections.
- The power receptacle must be a 3-wire type, with the wire connected to the ground of the electrical system.
- The receptacle should be easily accessible for the removal of the plug for maintenance.
- The receptacle location should be selected to prevent accidental removal of the power cord.
- The power cord between the cabinet and the receptacle should not present a hazard to the subscriber.
- A warning tag should be attached to the plug-end of the power cord to prevent accidental removal of the cord by the subscriber.

Equipment Grounding

9.05 The following is a description of the required ACD equipment grounding practice:

(a) All circuit commons within the cabinet shall derive ground from a single ground concentration point within the cabinet. Each cabinet's ground concentration point shall derive ground from a single ground concentration point serving all system cabinets and peripherals colocated with the system.

(b) The system cabinets and all associated ducting hardware along with all colocated peripherals shall not be exposed to any ground source other than the system single point ground described in (a) above.

(c) AC service wires bringing AC power to the cabinets shall not share an enclosure or raceway with other system grounds, DC power distribution wires, or signaling wires. All nonconnec-

torized AC power terminations shall be enclosed by raceways and termination boxes whether these enclosures appear outside or within system cabinets. This is to ensure AC service wires cannot fault the circuitry within system cabinets or associated ducting hardware.

(d) All system hardware shall be provided with an AC fault return path to the system single point ground which in turn shall be provided with a reliable path to the equipment grounding conductor (i.e. green wire ground or safety ground). The path from system equipment to system single point ground need not be a direct dedicated path but can be any reliable path to other system hardware which receives the above grounding path.

(e) All sources of external ground (i.e. system signaling ground to the approved ground source, etc) shall connect only to the system single point ground. The intent of providing for a system point ground is to minimize ground loops and prevent lightning from finding a path through system components.

(f) A separate grounding conductor (minimum size, 14 AWG) shall be separately run from the system single point ground to the communications ground system on the cross-connect field.

10. CABLING AND CROSS-CONNECTIONS

General

10.01 This Part details the cabling and cross-connections required when installing the ACD.

Telephone Set and Trunk Cabling

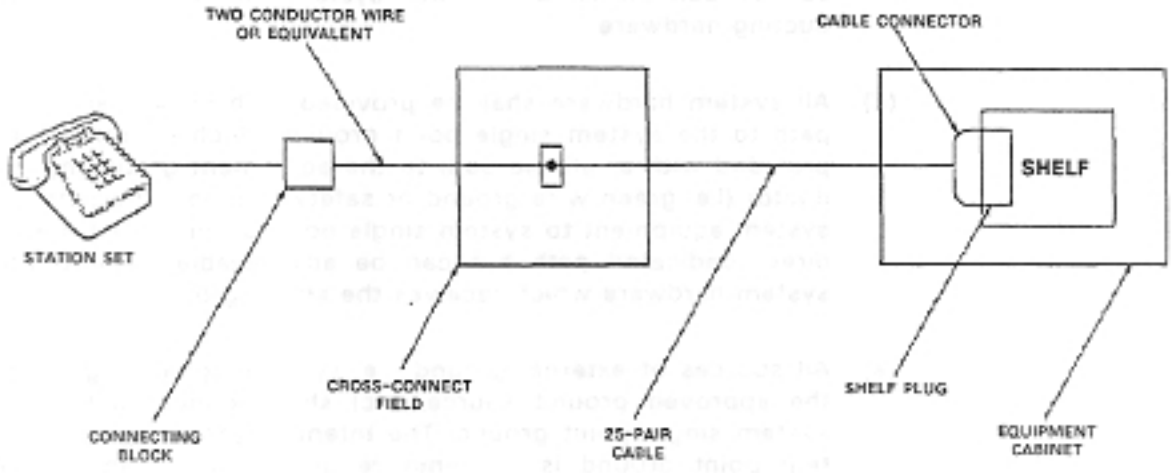
10.02 Telephone set and trunk cabling terminates on the building cross-connect terminal in the normal manner. The cabling requirements and limits for stations and consoles are shown in Figure 10-1 (a) and (b).

Cable Terminations, SX-100

10.03 All interconnecting cables must be terminated in accordance with Tables 10-1, 10-2, and Figure 10-2.

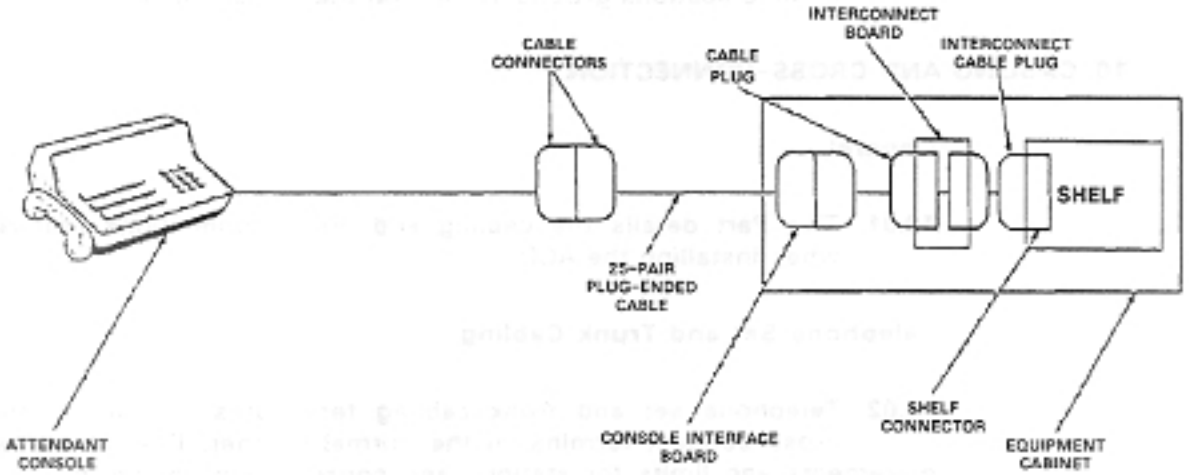
Cable Terminations, SX-200

10.04 All interconnecting cables must be terminated in accordance with Figure 10-3 and Tables 10-1, 10-2, 10-3 and 10-5. In addition if shelf 2 is installed, the interconnecting cables listed in Table 10-4 must be terminated.



NOTE: STATION LOOP LIMIT 1200 OHMS (INCLUDING STATION SET)
SUPERSET LOOP LIMIT 200 OHMS

(a) STATION CABLING & LIMITS

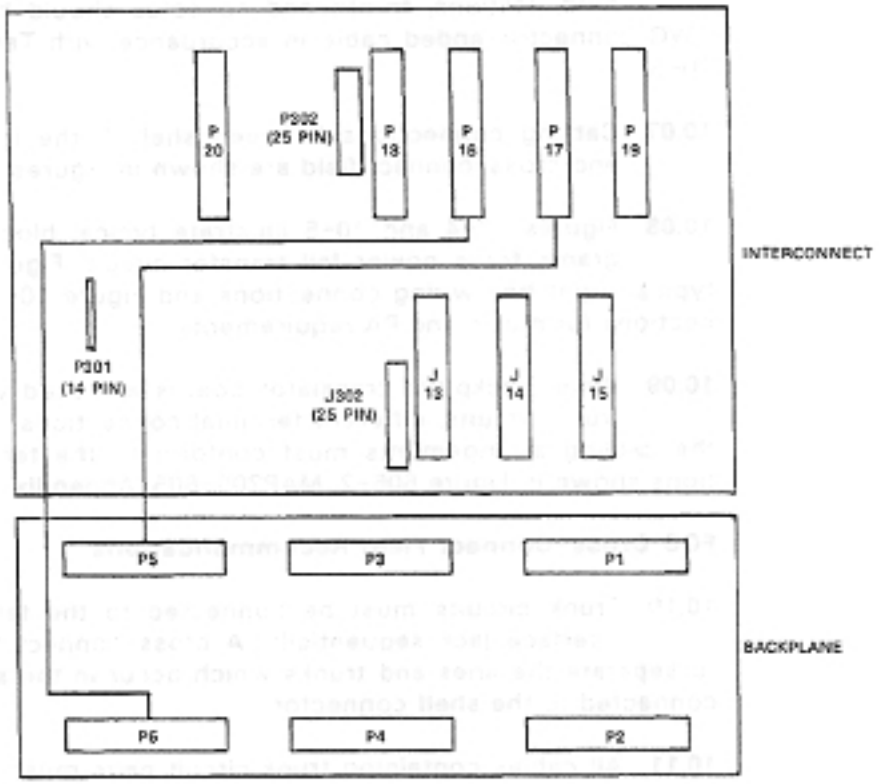


NOTE: CABLING LIMIT 1000 FT. (305 m) - 26 AWG MINIMUM
CABLE CONSOLE TO EQUIPMENT CABINET.

(b) ATTENDANT CONSOLE CABLING & LIMITS

X287R2

Figure 10-1 Station and Console Cabling Requirements



BOARD	CONNECTOR NO.	DESTINATION	BOARD	CONNECTOR NO.	DESTINATION
SHELF BACKPLANE	P1	X - CONNECT	INTERCONNECT	J13	MAINTENANCE CONSOLE
	P2	X - CONNECT			
	P3	X - CONNECT		J14	ATTENDANT CONSOLE 2
	P4	X - CONNECT			
	P5	P17		J15	ATTENDANT CONSOLE 1
	P6	P16		P16	P6
				P17	P5
				P18	X - CONNECT
				P19	X - CONNECT
				P20	X - CONNECT
				J302	LOCAL TERMINAL
				P301	MAINTENANCE PANEL

NOTE: ALL PLUGS AND CONNECTORS EXCEPT AS NOTED ARE STANDARD 25-PAIR (AMPHENOL TYPE). THE MALE AND FEMALE DESIGNATORS REFER TO THE CONNECTORS MOUNTED ON THE EQUIPMENT, NOT TO THE CABLE CONNECTORS.
MALE = P
FEMALE = J

X1315R2

Figure 10-2 SX-100 Connector Locations

Cross-Connections

10.05 Jumpers should be run using Z-type 24 AWG cross-connecting cables.

10.06 Connection between the equipment cabinet, cross-connect field, stations, trunks and consoles should be made using 26 AWG connector-ended cable in accordance with Tables 10-1 through 10-5.

10.07 Cabling connections between shelf 1, the interconnect board, and cross-connect field are shown in Figures 10-2 and 10-3.

10.08 Figures 10-4 and 10-5 illustrate typical block and wiring diagrams for a power fail transfer circuit. Figure 10-6 illustrates typical night bell wiring connections and Figure 10-7 shows the connections for music and PA requirements.

10.09 When backplane translator boards are used with the lines and trunk circuits, different terminal connections result. In this case the cabling arrangements must conform to the termination connections shown in Figure 605-2, MAP200-605, Appendix 6.

FCC Cross-Connect Field Recommendations

10.10 Trunk circuits must be connected to the telephone company interface jack sequentially. A cross-connect field is necessary to separate the lines and trunks which occur in the same cable that is connected to the shelf connector.

10.11 All cables containing trunk circuit pairs must be connectorized; thus, the cross-connect field must also be connectorized. Refer to Appendix 2 for details.

11. DESIGNATIONS

General

11.01 Designations are an integral part of the installation procedures. Correct identification of all cables and terminations improves service by reducing search time.

11.02 Modular cross-connecting fields are referenced to throughout this description. The procedure for terminating the cables and equipment are shown in Table 11-1 and Figure 11-1.

TABLE 11-1
TERMINATING PROCEDURE

STEP	ACTION
1	Mount cross-connecting blocks
2	Run and connect building cables
3	Identify cables using identification tape
4	Attach designation strips if required to cross-connecting blocks
5	Run and connect equipment cables
6	Run and connect required jumpers

12. INSTALLATION

General

12.01 The SX-100 and SX-200 systems should be installed in accordance with the following steps:

(a) Consult Appendix 1 for a review of MITEL Action Procedures (MAP's).

(b) Consult Appendix 2 for certain FCC interconnection requirements.

(c) For installation of SX-100 equipment proceed with the steps listed in Table A3-1, Appendix 3.

(d) For installation of SX-200 equipment proceed with the steps listed in Table A4-1, Appendix 4.

(e) Appendix 5 lists setting of card switches which are required to be performed during the installation of the ACD equipment. Appendix 5 also outlines SUPERSET 3/4 installation.

(f) Appendix 6 lists miscellaneous installation procedures which may be required during the ACD installation or the installation of additional equipment.

Precautions

12.02 When installing the system certain precautions must be observed, particularly when handling PCB cards, replacing modules thereon or using test equipment to measure voltages. These precautions are detailed below:

(a) When replacing PCB cards ensure that power is first switched off (where this is possible), but maintain the ground connections to the equipment.

(b) Handle PCB cards, as far as is practicable, only by the edges and avoiding contact with any exposed electrical connections. When removing a new card from its package, touch the ground bar first to equalize any static voltage build-up, prior to insert-

ing it in the equipment. A wrist ground strap should be worn (Figure 12-1), but failing availability, ensure that one hand is grounded to the system cabinet immediately prior to removing or inserting a PCB card.

(c) Modules, when removed for testing, should have their pins inserted into conductive foam to equalize build up.

(d) Conductive packages should be grounded prior to opening them to remove the contents, and similarly grounded prior to placing a card in the package. Suspected faulty cards should be placed in conductive packages to prevent further possible damage to the cards.

13. SUPERSET 3/4

General

13.01 The SUPERSET 3 and SUPERSET 4 are advanced microprocessor-controlled electronic telephone set. Because of this, certain considerations must be taken into account when installing the SUPERSET.

(a) The SUPERSET requires no special cabling as it is a 2-wire telephone set with a maximum loop resistance of 200 ohms (typically 2500 ft (63.5 m) of 26 AWG).

(b) The SUPERSET requires a special line card. The SUPERSET line card is not compatible with standard telephone sets. When this line card is installed in a slot only SUPERSET telephone sets may be connected to the equipment numbers associated with that slot.

(c) Only one SUPERSET may be connected to each port.

(d) When troubleshooting or testing a SUPERSET equipment or line, a SUPERSET must be used as a "butt-in". A standard telephone set will not work on a SUPERSET equipment number or line.

(e) The SUPERSET derives its power from the SX-100 or SX-200. For this reason, a SUPERSET 4 cannot be used as a Power Fail Transfer extension, as the SUPERSET will not be functional during power failures.

(f) If the announce port on the SUPERSET is to be used, an associated equipment number must be used other than the SUPERSET equipment number.

Installation

13.02 For specific installation instructions for the SUPERSET, see MAP200-509. For specific programming instructions see Section MITL9105/9110-090-210-NA.

TABLE 10-1 SHELF 1 EXTERNAL PLUG AND JACK CONNECTIONS

PLUG P1 (Connects to Cross-Connect Field)

Pin	Pair Color	Lead Designation Lines	Lead Designation, CO	DID/TIE	Trunks E&M†	Card Positions
26	W-BL	T1 reserved for	T1	T1	T1	
1	BL-W	R1 test line	R1	R1	R1	
27	W-O	T2	XT2		TR1	
2	O-W	R2	XT1		RR1	1
28	W-G	T3	T2		E1	
3	G-W	R3	R2		M1	
29	W-BR	T4				
4	BR-W	R4				
30	W-S	T1	T1	T1	T1	
5	S-W	R1	R1	R1	R1	
31	R-BL	T2	XT2		TR1	
6	BL-R	R2	XT1		RR1	2
32	R-O	T3	T2		E1	
7	O-R	R3	R2		M1	
33	R-G	T4				
8	G-R	R4				
34	R-BR	T1	T1	T1	T1	
9	BR-R	R1	R1	R1	R1	
35	R-S	T2	XT2		TR1	
10	S-R	R2	XT1		RR1	
36	BK-BL	T3	T2		E1	3
11	BL-BK	R3	R2		M1	
37	BK-O	T4				
12	O-BK	R4				
38	BK-G	T1	T1	T1	T1	
13	G-BK	R1	R1	R1	R1	
39	BK-BR	T2	XT2		TR1	
14	BR-BK	R2	XT1		RR1	
40	BK-S	T3	T2		E1	4
15	S-BK	R3	R2		M1	
41	Y-BL	T4				
16	BL-Y	R4				
42	Y-O	T1	T1	T1	T1	
17	O-Y	R1	R1	R1	R1	
43	Y-G	T2	XT2		TR1	
18	G-Y	R2	XT1		RR1	
44	Y-BR	T3	T2		E1	5
19	BR-Y	R3	R2		M1	
45	Y-S	T4				
20	S-Y	R4				
46	V-BL	T1	T1	T1	T1	
21	BL-V	R1	R1	R1	R1	
47	V-O	T2	XT2		TR1	
22	O-V	R2	XT1		RR1	
48	V-G	T3	T2		E1	6
23	G-V	R3	R2		M1	
49	V-BR	T4				
24	BR-V	R4				
50	V-S	SPARE	SPARE			
25	S-V	SPARE	SPARE			

†For 2-Wire E&M Trunk operation DO NOT connect RR and TR leads

TABLE 10-1 SHELF 1 EXTERNAL PLUG AND JACK CONNECTIONS (CONT'D)

PLUG P2 (Connects to Cross-Connect Field)

Pin	Pair Color	Lead Designation Lines	Lead Designation, CO	DID/TIE	Trunks E&M†	Card Positions
26	W-BL	T5	T3	T2	T2	
1	BL-W	R5	R3	R2	R2	
27	W-O	T6	XT4		TR2	
2	O-W	R6	XT3		RR2	1
28	W-G	T7	T4		E2	
3	G-W	R7	R4		M2	
29	W-BR	T8				
4	BR-W	R8				
30	W-S	T5	T3	T2	T2	
5	S-W	R5	R3	R2	R2	
31	R-BL	T6	XT4		TR2	
6	BL-R	R6	XT3		RR2	2
32	R-O	T7	T4		E2	
7	O-R	R7	R4		M2	
33	R-G	T8				
8	G-R	R8				
34	R-BR	T5	T3	T2	T2	
9	BR-R	R5	R3	R2	R2	
35	R-S	T6	XT4		TR2	
10	S-R	R6	XT3		RR2	
36	BK-BL	T7	T4		E2	3
11	BL-BK	R7	R4		M2	
37	BK-O	T8				
12	O-BK	R8				
38	BK-G	T5	T3	T2	T2	
13	G-BK	R5	R3	R2	R2	
39	BK-BR	T6	XT4		TR2	
14	BR-BK	R6	XT3		RR2	
40	BK-S	T7	T4		E2	4
15	S-BK	R7	R4		M2	
41	Y-BL	T8				
16	BL-Y	R8				
42	Y-O	T5	T3	T2	T2	
17	O-Y	R5	R3	R2	R2	
43	Y-G	T6	XT4		TR2	
18	G-Y	R6	XT3		RR2	
44	Y-BR	T7	T4		E2	5
19	BR-Y	R7	R4		M2	
45	Y-S	T8				
20	S-Y	T8				
46	V-BL	T5	T3	T2	T2	
21	BL-V	R5	R3	R2	R2	
47	V-O	T6	XT4		TR2	
22	O-V	R6	XT3		RR2	
48	V-G	T7	T4		E2	6
23	G-V	R7	R4		M2	
49	V-BR	T8				
24	BR-V	R8				
50	V-S	SPARE	SPARE			
25	S-V	SPARE	SPARE			

†For 2-Wire E&M Trunk operation DO NOT connect RR and TR leads

TABLE 10-1 SHELF 1 EXTERNAL PLUG AND JACK CONNECTIONS (CONT'D)

PLUG P3 (Connects to Cross-Connect Field)

Pin	Pair Color	Lead Designation Lines	Lead Designation, CO	DID/TIE	Trunks E&M†	Card Positions
26	W-BL	T1	T1	T1	T1	
1	BL-W	R1	R1	R1	R1	
27	W-O	T2	XT2		TR1	
2	O-W	R2	XT1		RR1	7
28	W-G	T3	T2		E1	
3	G-W	R3	R2		M1	
29	W-BR	T4				
4	BR-W	R4				
30	W-S	T1	T1	T1	T1	
5	S-W	R1	R1	R1	R1	
31	R-BL	T2	XT2		TR1	
6	BL-R	R2	XT1		RR1	8
32	R-O	T3	T2		E1	
7	O-R	R3	R2		M1	
33	R-G	T4				
8	G-R	R4				
34	R-BR	T1	T1	T1	T1	
9	BR-R	R1	R1	R1	R1	
35	R-S	T2	XT2		TR1	
10	S-R	R2	XT1		RR1	
36	BK-BL	T3	T2		E1	9
11	BL-BK	R3	R2		M1	
37	BK-O	T4				
12	O-BK	R4				
38	BK-G	T1	T1	T1	T1	
13	G-BK	R1	R1	R1	R1	
39	BK-BR	T2	XT2		TR1	
14	BR-BK	R2	XT1		RR1	
40	BK-S	T3	T2		E1	10
15	S-BK	R3	R2		M1	
41	Y-BL	T4				
16	BL-Y	R4				
42	Y-O	T1	T1	T1	T1	
17	O-Y	R1	R1	R1	R1	
43	Y-G	T2	XT2		TR1	
18	G-Y	R2	XT1		RR1	
44	Y-BR	T3	T2		E1	11
19	BR-Y	R3	R2		M1	
45	Y-S	T4				
20	S-Y	R4				
46	V-BL	T1	T1	T1	T1	
21	BL-V	R1	R1	R1	R1	
47	V-O	T2	XT2		TR1	
22	O-V	R2	XT1		RR1	
48	V-G	T3	T2		E1	12
23	G-V	R3	R2		M1	See Note
49	V-BR	T4				
24	BR-V	R4				
50	V-S	SPARE	SPARE			
25	S-V	SPARE	SPARE			

Note: Position 12 can be used for lines, trunks, or receiver #4 card.
†For 2-Wire E&M Trunk operation DO NOT connect RR and TR leads

TABLE 10-1 SHELF 1 EXTERNAL PLUG AND JACK CONNECTIONS (CONT'D)

PLUG P4 (Connects to Cross-Connect Field)

Pin	Pair Color	Lead Designation Lines	Lead Designation, CO	DID/TIE	Trunks E&M†	Card Positions
26	W-BL	T5	T3	T2	T2	
1	BL-W	R5	R3	R2	R2	
27	W-O	T6	XT4		TR2	
2	O-W	R6	XT3		RR2	7
28	W-G	T7	T4		E2	
3	G-W	R7	R4		M2	
29	W-BR	T8				
4	BR-W	R8				
30	W-S	T5	T3	T2	T2	
5	S-W	R5	R3	R2	R2	
31	R-BL	T6	XT4		TR2	
6	BL-R	R6	XT3		RR2	8
32	R-O	T7	T4		E2	
7	O-R	R7	R4		M2	
33	R-G	T8				
8	G-R	R8				
34	R-BR	T5	T3	T2	T2	
9	BR-R	R5	R3	R2	R2	
35	R-S	T6	XT4		TR2	
10	S-R	R6	XT3		RR2	
36	BK-BL	T7	T4		E2	9
11	BL-BK	R7	R4		M2	
37	BK-O	T8				
12	O-BK	R8				
38	BK-G	T5	T3	T2	T2	
13	G-BK	R5	R3	R2	R2	
39	BK-BR	T6	XT4		TR2	
14	BR-BK	R6	XT3		RR2	
40	BK-S	T7	T4		E2	10
15	S-BK	R7	R4		M2	
41	Y-BL	T8				
16	BL-Y	R8				
42	Y-O	T5	T3	T2	T2	
17	O-Y	R5	R3	R2	R2	
43	Y-G	T6	XT4		TR2	
18	G-Y	R6	XT3		RR2	
44	Y-BR	T7	T4		E2	11
19	BR-Y	R7	R4		M2	
45	Y-S	T8				
20	S-Y	T8				
46	V-BL	T5	T3	T2	T2	
21	BL-V	R5	R3	R2	R2	
47	V-O	T6	XT4		TR2	
22	O-V	R6	XT3		RR2	
48	V-G	T7	T4		E2	12
23	G-V	R7	R4		M2	See Note
49	V-BR	T8				
24	BR-V	R8				
50	V-S	SPARE	SPARE			
25	S-V	SPARE	SPARE			

Note: Position 12 can be used for lines, trunks or receiver card #4.
†For 2-Wire E&M Trunk operation DO NOT connect RR and TR leads

TABLE 10-1 SHELF 1 EXTERNAL PLUG AND JACK CONNECTIONS (CONT'D)

PLUG P5 (Connects to Plug P17)

Pin	Pair Color	Lead Designation Lines	Lead Designation, CO	DID/TIE	Trunks E&M†	Card Positions
26	W-BL	T1 097	T1	T1		
1	BL-W	R1	R1	R1	R1	
27	W-O	T2 098	XT2		TR1	
2	O-W	R2	XT1		RR1	
28	W-G	T3 099	T2		E1	13
3	G-W	R3	R2		M1	See Note
29	W-BR	T4 100				
4	BR-W	R4				
30	W-S	T1 105	T1	T1	T1	
5	S-W	R1	R1	R1	R1	
31	R-BL	T2 106	XT2		TR1	
6	BL-R	R2	XT1		RR1	
32	R-O	T3 107	T2		E1	14
7	O-R	R3	R2		M1	See Note
33	R-G	T4 108				
8	G-R	R4				
34	R-BR					
9	BR-R					
35	R-S					
10	S-R	RECEIVER No. 1				15
36	BK-BL					
11	BL-BK					
37	BK-O					
12	O-BK					
38	BK-G	T (A)				
13	G-BK	R (A)				
39	BK-BR	S DATA OUT T (A)	ATTENDANT CONSOLE			
14	BR-BK	S DATA OUT R (A)	No. 2			16
40	BK-S	S DATA IN T (A)				
15	S-BK	S DATA IN R (A)				
41	Y-BL	PA2 Control B				
16	BL-Y	PA2 Control A				
42	Y-O	T (A)				
17	O-Y	R (A)				
43	Y-G	S DATA OUT T (A)	ATTENDANT CONSOLE			
18	G-Y	S DATA OUT R (A)	No. 1			17
44	Y-BR	S DATA IN T (A)				
19	BR-Y	S DATA IN R (A)				
45	Y-S	PA1 Control B				
20	S-Y	PA1 Control A				
46	V-BL	MUSIC IN B				
21	BL-V	MUSIC IN A				
47	V-O	TEST LINE				
22	O-V	TEST LINE	MUSIC ON HOLD			18
48	V-G	PA1 OUT B				
23	G-V	PA1 OUT A				
49	V-BR	PA2 OUT B				
24	BR-V	PA2 OUT A				
50	V-S	SPARE	SPARE			
25	S-V	SPARE	SPARE			

Note: Positions 14 and 13 can be used for lines or trunks, or for receiver cards #2 and #3 respectively.
†For 2-Wire E&M Trunk operation DO NOT connect RR and TR leads

TABLE 10-1 SHELF 1 EXTERNAL PLUG AND JACK CONNECTIONS (CONT'D)

PLUG P6 (Connects to Plug P16)

Pin	Pair Color	Lead Designation Lines	Lead Designation, CO	DID/TIE	Trunks E&M†	Card Positions
26	W-BL	T5 101	T1	T1	T1	
1	BL-W	R5	R1	R1	R1	
27	W-O	T6	XT2		TR1	13
2	O-W	R6 Lines	XT1		RR1	See Note
28	W-G	T7 105	T2		E1	
3	G-W	R7	R2		M1	
29	W-BR	T8 104				
4	BR-W	R8				
30	W-S	T5 109	T1	T1	T1	
5	S-W	R5	R1	R1	R1	
31	R-BL	T6	XT2		TR1	
6	BL-R	R6 Lines	XT1		RR1	14
32	R-O	T7 111	T2		E1	See Note
7	O-R	R7	R2		M1	
33	R-G	T8 112				
8	G-R	R8				
34	R-BR					
9	BR-R					
35	R-S					
10	S-R	RECEIVER No. 1				15
36	BK-BL					
11	BL-BK					
37	BK-O					
12	O-BK					
38	BK-G	T (A)				
13	G-BK	R (A)				
39	BK-BR	S DATA OUT T (B)	ATTENDANT CONSOLE			
14	BR-BK	S DATA OUT R (B)	SPARE			
40	BK-S	S DATA IN T (B)				16
15	S-BK	S DATA IN R (B)	NOT USED			
41	Y-BL	R (K1)				
16	BL-Y	K1	NIGHT BELL 1			
42	Y-O	T (A)				
17	O-Y	R (A)				
43	Y-G	S DATA OUT T (B)	MAINTENANCE			
18	G-Y	S DATA OUT R (B)	CONSOLE			17
44	Y-BR	S DATA IN T (B)				
19	BR-Y	S DATA IN R (A)(B)				
45	Y-S	UART IN				
20	S-Y	UART OUT				
46	V-BL	R (K5)	SOFTWARE ALARM			
21	BL-V	K5				
47	V-O	R (K4)	NIGHT SERVICE			18
22	O-V	K4				(See Notes for
48	V-G	R (K3)	NIGHT BELL 3			PLUG 18)
23	G-V	K3				
49	V-BR	R (K2)	NIGHT BELL 2			
24	BR-V	K2				
50	V-S	SPARE	SPARE			
25	S-V	SPARE	SPARE			

Note: Positions 14 and 13 can be used for lines or trunks, or for receiver cards #2 and #3 respectively.
†For 2-Wire E&M Trunk operation DO NOT connect RR and TR leads

TABLE 10-2 INTERCONNECT BOARD PLUG AND JACK CONNECTIONS

CONNECTOR J13 MAINTENANCE CONSOLE (Connected To Maintenance Panel)			CONNECTOR J14 ATTENDANT CONSOLE NO. 2 (See Note For J15)		
Pin	Pair Color	Lead Designation	Pin	Pair Color	Lead Designation
26	W-BL	ELECTROSTATIC GROUND	26	W-BL	ELECTROSTATIC GROUND
1	BL-W	ELECTROSTATIC GROUND	1	BL-W	ELECTROSTATIC GROUND
27	W-O	ELECTROSTATIC GROUND	27	W-O	ELECTROSTATIC GROUND
2	O-W	ELECTROSTATIC GROUND	2	O-W	ELECTROSTATIC GROUND
28	W-G	ELECTROSTATIC GROUND	28	W-G	ELECTROSTATIC GROUND
3	G-W	ELECTROSTATIC GROUND	3	G-W	ELECTROSTATIC GROUND
29	W-BR	ELECTROSTATIC GROUND	29	W-BR	ELECTROSTATIC GROUND
4	BR-W	ELECTROSTATIC GROUND	4	BR-W	ELECTROSTATIC GROUND
30	W-S	DATA IN COMMON	30	W-S	DATA IN COMMON
5	S-W	DATA IN	5	S-W	DATA IN
31	R-BL	ELECTROSTATIC GROUND	31	R-BL	ELECTROSTATIC GROUND
6	BL-R	ELECTROSTATIC GROUND	6	BL-R	ELECTROSTATIC GROUND
32	R-O	DATA OUT COMMON	32	R-O	DATA OUT COMMON
7	R-O	DATA OUT	7	R-O	DATA OUT
33	R-G	ELECTROSTATIC GROUND	33	R-G	ELECTROSTATIC GROUND
8	G-R	ELECTROSTATIC GROUND	8	G-R	ELECTROSTATIC GROUND
34	R-BR	ELECTROSTATIC GROUND	34	R-BR	ELECTROSTATIC GROUND
9	BR-R	ELECTROSTATIC GROUND	9	BR-R	ELECTROSTATIC GROUND
35	R-S	CUTOVER SWB	35	R-S	CUTOVER SWB
10	S-R	CUTOVER SWA	10	S-R	CUTOVER SWA
36	BK-BL	ELECTROSTATIC GROUND	36	BK-BL	ELECTROSTATIC GROUND
11	BL-BK	ELECTROSTATIC GROUND	11	BL-BK	ELECTROSTATIC GROUND
37	BK-O	MAJOR ALARM	37	BK-O	MAJOR ALARM
12	O-BK	MAJOR ALARM	12	O-BK	MAJOR ALARM
38	BK-G	TIP	38	BK-G	TIP
13	G-BK	RING	13	G-BK	RING
39	BK-BR	ELECTROSTATIC GROUND	39	BK-BR	ELECTROSTATIC GROUND
14	BR-BK	ELECTROSTATIC GROUND	14	BR-BK	ELECTROSTATIC GROUND
40	BK-S	ELECTROSTATIC GROUND	40	BK-S	ELECTROSTATIC GROUND
15	S-BK	ELECTROSTATIC GROUND	15	S-BK	ELECTROSTATIC GROUND
41	Y-BL	ELECTROSTATIC GROUND	41	Y-BL	ELECTROSTATIC GROUND
16	BL-Y	ELECTROSTATIC GROUND	16	BL-Y	ELECTROSTATIC GROUND
42	Y-O	ELECTROSTATIC GROUND	42	Y-O	ELECTROSTATIC GROUND
17	O-Y	ELECTROSTATIC GROUND	17	O-Y	ELECTROSTATIC GROUND
43	Y-G	0V	43	Y-G	0V
18	G-Y	-48V	18	G-Y	-48V
44	Y-BR	0V	44	Y-BR	0V
19	BR-Y	-48V	19	BR-Y	-48V
45	Y-S	0V	45	Y-S	0V
20	S-Y	-48V	20	S-Y	-48V
46	V-BL	0V	46	V-BL	0V
21	BL-V	-48V	21	BL-V	-48V
47	V-O	0V	47	V-O	0V
22	O-V	-48V	22	O-V	-48V
48	V-G	0V	48	V-G	0V
23	G-V	-48V	23	G-V	-48V
49	V-BR	0V	49	V-BR	0V
24	BR-V	-48V	24	BR-V	-48V
50	V-S	0V	50	V-S	0V
25	S-V	-48V	25	S-V	-48V

TABLE 10-2 INTERCONNECT BOARD PLUG AND JACK CONNECTIONS (CONT'D)

CONNECTOR J15 ATTENDANT CONSOLE NO.1
(See Note)

Pin	Pair Color	Lead Designation
26	W-BL	ELECTROSTATIC GROUND
1	BL-W	ELECTROSTATIC GROUND
27	W-O	ELECTROSTATIC GROUND
2	O-W	ELECTROSTATIC GROUND
28	W-G	ELECTROSTATIC GROUND
3	G-W	ELECTROSTATIC GROUND
29	W-BR	ELECTROSTATIC GROUND
4	BR-W	ELECTROSTATIC GROUND
30	W-S	DATA IN COMMON
5	S-W	DATA IN
31	R-BL	ELECTROSTATIC GROUND
6	BL-R	ELECTROSTATIC GROUND
32	R-O	DATA OUT COMMON
7	R-O	DATA OUT
33	R-G	ELECTROSTATIC GROUND
8	G-R	ELECTROSTATIC GROUND
34	R-BR	ELECTROSTATIC GROUND
9	BR-R	ELECTROSTATIC GROUND
35	R-S	CUTOVER SWB
10	S-R	CUTOVER SWA
36	BK-BL	ELECTROSTATIC GROUND
11	BL-BK	ELECTROSTATIC GROUND
37	BK-O	MAJOR ALARM
12	O-BK	MAJOR ALARM
38	BK-G	TIP
13	G-BK	RING
39	BK-BR	ELECTROSTATIC GROUND
14	BR-BK	ELECTROSTATIC GROUND
40	BK-S	ELECTROSTATIC GROUND
15	S-BK	ELECTROSTATIC GROUND
41	Y-BL	ELECTROSTATIC GROUND
16	BL-Y	ELECTROSTATIC GROUND
42	Y-O	ELECTROSTATIC GROUND
17	O-Y	ELECTROSTATIC GROUND
43	Y-G	0V
18	G-Y	-48V
44	Y-BR	0V
19	BR-Y	-48V
45	Y-S	0V
20	S-Y	-48V
46	V-BL	0V
21	BL-V	-48V
47	V-O	0V
22	O-V	-48V
48	V-G	0V
23	G-V	-48V
49	V-BR	0V
24	BR-V	-48V
50	V-S	0V
25	S-V	-48V

NOTE: Connector J15 connected either direct to Attendant Console 1 or via plug P23 and jack J22 to console. Connector J14 similarly connected either direct to attendant console 2 or via plug P25 and jack J24.

TABLE 10-2 INTERCONNECT BOARD PLUG AND JACK CONNECTIONS (CONT'D)

PLUG P16 (Interconnect Cable to P6)

Pin	Pair Color	Lead Designation Lines	Lead Designation, CO	DID/TIE	Trunks E&M†	Card Positions
26	W-BL	T5	T3	T2	T2	
1	BL-W	R5	R3	R2	R2	
27	W-O	T6	XT4		TR2	
2	O-W	R6	XT3		RR2	
28	W-G	T7	T4		E2	13
3	G-W	R7	R4		M2	
29	W-BR	T8				
4	BR-W	R8				
30	W-S	T5	T3	T2	T2	
5	S-W	R5	R3	R2	T2	
31	R-BL	T6	XT4		TR2	
6	BL-R	R6	XT3		RR2	
32	R-O	T7	T4		E2	14
7	O-R	R7	R4		M2	
33	R-G	T8				
8	G-R	R8				
34	R-BR					
9	BR-R					
35	R-S					
10	S-R		RECEIVER 1			15
36	BK-BL					
11	BL-BK					
37	BK-O					
12	O-BK					
38	BK-G	SPARE				
13	G-BK	SPARE				
39	BK-BR	SPARE				
14	BR-BK	SPARE				16
40	BK-S	SPARE				
15	S-BK	SPARE				
41	Y-BL	NIGHT BELL 1B	See Notes for Plug P18			
16	BL-Y	NIGHT BELL 1A				
42	Y-O	TIP				
17	O-Y	RING				
43	Y-G	DATA IN COMMON				
18	G-Y	DATA IN	MAINTENANCE CONSOLE			17
44	Y-BR	DATA OUT COMMON				
19	BR-Y	DATA OUT				
45	Y-S	UART B				
20	S-Y	UART A				
46	V-BL	ALARM B				
21	BL-V	ALARM A				
47	V-O	NIGHT SERVICE B				
22	O-V	NIGHT SERVICE A				18
48	V-G	NIGHT BELL 3B	See Notes for Plug P18			
23	G-V	NIGHT BELL 3A				
49	V-BR	NIGHT BELL 2B				
24	BR-V	NIGHT BELL 2A	See Notes for Plug P18			
50	V-S	SPARE				
25	S-V	SPARE				

†For 2-Wire E&M Trunk operation DO NOT connect RR and TR leads

TABLE 10-2 INTERCONNECT BOARD PLUG AND JACK CONNECTIONS (CONT'D)

PLUG P17 (Interconnect Cable to P5)

Pin	Pair Color	Lead Designation Lines	Lead Designation, CO	DID/TIE	Trunks E&M†	Card Positions
26	W-BL	T1	T1	T1	T1	
1	BL-W	R1	R1	R1	R1	
27	W-O	T2	XT2		TR1	
2	O-W	R2	XT1		RR1	13
28	W-G	T3	T2		E1	
3	G-W	R3	R2		M1	
29	W-BR	T4				
4	BR-W	R4				
30	W-S	T1	T1	T1	T1	
5	S-W	R1	R1	R1	R1	
31	R-BL	T2	XT2		TR1	
6	BL-R	R2	XT1		RR1	14
32	R-O	T3	T2		E1	
7	O-R	R3	R2		M1	
33	R-G	T4				
8	G-R	R4				
34	R-BR					
9	BR-R					
35	R-S					
10	S-R		RECEIVER 1			15
36	BK-BL					
11	BL-BK					
37	BK-O					
12	O-BK					
38	BK-G	TIP (A)				
13	G-BK	RING (A)	ATTENDANT CONSOLE No. 2			
39	BK-BR	S DATA IN R (A)				
14	BR-BK	S DATA IN T (A)				
40	BK-S	S DATA OUT R (A)				16
15	S-BK	S DATA OUT T (A)				
41	Y-BL	PA2 CONTROL B				
16	BL-Y	PA2 CONTROL A				
42	Y-O	TIP				
17	O-Y	RING	ATTENDANT CONSOLE No. 1			
43	Y-G	DATA IN COMMON				
18	G-Y	DATA IN				17
44	Y-BR	DATA OUT COMMON				
19	BR-Y	DATA OUT				
45	Y-S	PA1 CONTROL B				
20	S-Y	PA1 CONTROL A				
46	V-BL	MUSIC IN B				
21	BL-V	MUSIC IN A				
47	V-O	MAINT TIP				18
22	O-V	MAINT RING				
48	V-G	PA1 OUT B				
23	G-V	PA1 OUT A				
49	V-BR	PA2 OUT B	(See Notes For Plug P18)			
24	BR-V	PA2 OUT A				
50	V-S	SPARE				
25	S-V	SPARE				

†For 2-Wire E&M Trunk operation DO NOT connect RR and TR leads

TABLE 10-2 INTERCONNECT BOARD PLUG AND JACK CONNECTIONS (CONT'D)

PLUG P18 (Miscellaneous Connections to Cross-Connect Field)

Pin	Pair Color	Lead Designation
26	W-BL	SPARE
1	BL-W	SPARE
27	W-O	SPARE
2	O-W	SPARE
28	W-G	SPARE
3	G-W	SPARE
29	W-BR	SPARE
4	BR-W	SPARE
30	W-S	SPARE
5	S-W	SPARE
31	R-BL	SPARE
6	BL-R	SPARE
32	R-O	SPARE
7	R-O	SPARE
33	R-G	SPARE
8	G-R	SPARE
34	R-BR	SPARE
9	BR-R	SPARE
35	R-S	SPARE
10	S-R	SPARE
36	BK-BL	SPARE
11	BL-BK	SPARE
37	BK-O	SPARE
12	O-BK	SPARE
38	BK-G	SPARE
13	G-BK	SPARE
39	BK-BR	SPARE
14	BR-BK	SPARE
40	BK-S	SPARE
15	S-BK	SPARE
41	Y-BL	SPARE
16	BL-Y	SPARE
42	Y-O	MUSIC IN B
17	O-Y	MUSIC IN A
43	Y-G	PA2 OUT B
18	G-Y	PA2 OUT A
44	Y-BR	NIGHT BELL 2B
19	BR-Y	NIGHT BELL 2A
45	Y-S	PA1 OUT B
20	S-Y	PA1 OUT A
46	V-BL	NIGHT BELL 1B
21	BL-V	NIGHT BELL 1A
47	V-O	PA1 CONTROL B
22	O-V	PA1 CONTROL A
48	V-G	PA2 CONTROL B
23	G-V	PA2 CONTROL A
49	V-BR	NIGHT SERVICE B
24	BR-V	NIGHT SERVICE A
50	V-S	NIGHT BELL 3B
25	S-V	NIGHT BELL 3A

Note:
(1) Night service relay operates permanently when in night service.
Night Bell continuous rating:
Open circuit voltage 120 Vrms
Closed circuit current 75mArms
(2) Music in 100 mV
Impedance 600 Ohms
(3) PA Output Level 100 mV
Impedance 600 Ohms

TABLE 10-2 INTERCONNECT BOARD PLUG AND JACK CONNECTIONS (CONT'D)

PLUG P19 ON INTERCONNECT CARD
(Miscellaneous Connections to Cross-Connect Field)

Pin	Pair Color	Lead Designation Line	Lead Designation, CO	DID/TIE	Trunks E&M†	Card Positions
26	W-BL	SPARE				
1	BL-W	SPARE				
27	W-O					
2	O-W					
28	W-G					
3	G-W	RECEIVER 1				15
29	W-BR					
4	BR-W					
30	W-S					
5	S-W					
31	R-BL	T8				
6	BL-R	R8				
32	R-O	T7	T4		E2	
7	O-R	R7	R4		M2	14
33	R-G	T6	XT3		TR2	
8	G-R	R6	XT4		RR2	
34	R-BR	T5	T3	T2	T2	
9	BR-R	R5	R3	R2	R2	
35	R-S	T8				
10	S-R	R8				
36	BK-BL	T7	T4		E2	
11	BL-BK	R7	R4		M2	13
37	BK-O	T6	XT3		TR2	
12	O-BK	R6	XT4		RR2	
38	BK-G	T5	T3	T2	T2	
13	G-BK	R5	R3	R2	R2	
39	BK-BR					
14	BR-BK					
40	BK-S					
15	S-BK	RECEIVER 1				15
41	Y-BL					
16	BL-Y					
42	Y-O					
17	O-Y					
43	Y-G	T4				
18	G-Y	R4				
44	Y-BR	T3	T2		E1	
19	BR-Y	R3	R2		M1	14
45	Y-S	T2	XT1		TR1	
20	S-Y	R2	XT2		RR1	
46	V-BL	T1	T1	T1	T1	
21	BL-V	R1	R1	R1	R1	
47	V-O	T4				
22	O-V	R4				
48	V-G	T3	T2		E1	
23	G-V	R3	R2		M1	
49	V-BR	T2	XT1		TR1	13
24	BR-V	R2	XT2		RR1	
50	V-S	T1	T1	T1	T1	
25	S-V	R1	R1	R1	R1	

†For 2-Wire E&M Trunk operation DO NOT connect RR and TR leads.

TABLE 10-2 INTERCONNECT BOARD PLUG AND JACK CONNECTIONS (CONT'D)

JACK J302 DATA PORT (SEE NOTES)			CONNECTOR P302 DATA PORT (SEE NOTES)
Pin	Lead Designation		
1	0V		
2	TRANSMIT DATA		
3	RECEIVE DATA		
4			
5	CLEAR TO SEND		
6	DATA SET READY		
7	SIGNAL GROUND		
8	CARRIER DETECT		
9	(RESERVED FOR DATA SET TESTING)		
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20	DATA TERM READY		
21			
22			
23			
24			
25			

Note 1. Jack J302 is provided on the SX-100 and SX-200 ACD's for external recording devices.
2. Use Connector J302 when connected to terminal equipment e.g. magnetic tape recorder or printer.
3. Use a null modem when connected to a modem.
4. See Appendix 5, MAP200-504 for details of switch settings for data characteristics.
5. See Section MITL9105/9110-090-450-NA, Traffic Measurement, for applications of the connectors.

TABLE 10-3 POWER FAIL TRANSFER BOARD PLUG AND JACK CONNECTIONS

PLUG P20
(Power Fail Transfer Connections to Cross-Connect Field)

Pin	Pair Color	Lead Designation
26	W-BL	STATION T1
1	BL-W	STATION R1
27	W-O	LINE CARD T1
2	O-W	LINE CARD R1
28	W-G	TRUNK T1
3	G-W	TRUNK R1
29	W-BR	TRUNK CARD T1
4	BR-W	TRUNK CARD R1
30	W-S	STATION T2
5	S-W	STATION R2
31	R-BL	LINE CARD T2
6	BL-R	LINE CARD R2
32	R-O	TRUNK T2
7	R-O	TRUNK R2
33	R-G	TRUNK CARD T2
8	G-R	TRUNK CARD R2
34	R-BR	STATION T3
9	BR-R	STATION R3
35	R-S	LINE CARD T3
10	S-R	LINE CARD R3
36	BK-BL	TRUNK T3
11	BL-BK	TRUNK R3
37	BK-O	TRUNK CARD T3
12	O-BK	TRUNK CARD R3
38	BK-G	STATION T4
13	G-BK	STATION R4
39	BK-BR	LINE CARD T4
14	BR-BK	LINE CARD R4
40	BK-S	TRUNK T4
15	S-BK	TRUNK R4
41	Y-BL	TRUNK CARD T4
16	BL-Y	TRUNK CARD R4
42	Y-O	STATION T5
17	O-Y	STATION R5
43	Y-G	LINE CARD T5
18	G-Y	LINE CARD R5
44	Y-BR	TRUNK T5
19	BR-Y	TRUNK R5
45	Y-S	TRUNK CARD T5
20	S-Y	TRUNK CARD R5
46	V-BL	STATION T6
21	BL-V	STATION R6
47	V-O	LINE CARD T6
22	O-V	LINE CARD R6
48	V-G	TRUNK T6
23	G-V	TRUNK R6
49	V-BR	TRUNK CARD T6
24	BR-V	TRUNK CARD R6
50	V-S	SPARE
25	S-V	SPARE

PLUG P21
(Power Fail Transfer Connections to Cross-Connect Field)

Pin	Pair Color	Lead Designation
26	W-BL	STATION T7
1	BL-W	STATION R7
27	W-O	LINE CARD T7
2	O-W	LINE CARD R7
28	W-G	TRUNK T7
3	G-W	TRUNK R7
29	W-BR	TRUNK CARD T7
4	BR-W	TRUNK CARD R7
30	W-S	STATION T8
5	S-W	STATION R8
31	R-BL	LINE CARD T8
6	BL-R	LINE CARD R8
32	R-O	TRUNK T8
7	R-O	TRUNK R8
33	R-G	TRUNK CARD T8
8	G-R	TRUNK CARD R8
34	R-BR	STATION T9
9	BR-R	STATION R9
35	R-S	LINE CARD T9
10	S-R	LINE CARD R9
36	BK-BL	TRUNK T9
11	BL-BK	TRUNK R9
37	BK-O	TRUNK CARD T9
12	O-BK	TRUNK CARD R9
38	BK-G	STATION T10
13	G-BK	STATION R10
39	BK-BR	LINE CARD T10
14	BR-BK	LINE CARD R10
40	BK-S	TRUNK T10
15	S-BK	TRUNK R10
41	Y-BL	TRUNK CARD T10
16	BL-Y	TRUNK CARD R10
42	Y-O	STATION T11
17	O-Y	STATION R11
43	Y-G	LINE CARD T11
18	G-Y	LINE CARD R11
44	Y-BR	TRUNK T11
19	BR-Y	TRUNK R11
45	Y-S	TRUNK CARD T11
20	S-Y	TRUNK CARD R11
46	V-BL	STATION T12
21	BL-V	STATION R12
47	V-O	LINE CARD T12
22	O-V	LINE CARD R12
48	V-G	TRUNK T12
23	G-V	TRUNK R12
49	V-BR	TRUNK CARD T12
24	BR-V	TRUNK CARD R12
50	V-S	SPARE
25	S-V	SPARE

Note: Plug 21 is not installed on SX-100 equipment.

TABLE 10-4 SHELF 2 EXTERNAL PLUG AND JACK CONNECTIONS

PLUG P7 (Connects to Cross-Connect Field)

Pin	Pair Color	Lead Designation Lines	Lead Designation, CO	DID/TIE	Trunks E&M†	Card Positions
26	W-BL	T1 reserved for	T1	T1	T1	
1	BL-W	R1 test line	R1	R1	R1	
27	W-O	T2	XT2		TR1	
2	O-W	R2	XT1		RR1	1
28	W-G	T3	T2		E1	
3	G-W	R3	R2		M1	
29	W-BR	T4				
4	BR-W	R4				
30	W-S	T1	T1	T1	T1	
5	S-W	R1	R1	R1	R1	
31	R-BL	T2	XT2		TR1	
6	BL-R	R2	XT1		RR1	2
32	R-O	T3	T2		E1	
7	O-R	R3	R2		M1	
33	R-G	T4				
8	G-R	R4				
34	R-BR	T1	T1	T1	T1	
9	BR-R	R1	R1	R1	R1	
35	R-S	T2	XT2		TR1	
10	S-R	R2	XT1		RR1	
36	BK-BL	T3	T2		E1	3
11	BL-BK	R3	R2		M1	
37	BK-O	T4				
12	O-BK	R4				
38	BK-G	T1	T1	T1	T1	
13	G-BK	R1	R1	R1	R1	
39	BK-BR	T2	XT2		TR1	
14	BR-BK	R2	XT1		RR1	
40	BK-S	T3	T2		E1	4
15	S-BK	R3	R2		M1	
41	Y-BL	T4				
16	BL-Y	R4				
42	Y-O	T1	T1	T1	T1	
17	O-Y	R1	R1	R1	R1	
43	Y-G	T2	XT2		TR1	
18	G-Y	R2	XT1		RR1	
44	Y-BR	T3	T2		E1	5
19	BR-Y	R3	R2		M1	
45	Y-S	T4				
20	S-Y	R4				
46	V-BL	T1	T1	T1	T1	
21	BL-V	R1	R1	R1	R1	
47	V-O	T2	XT2		TR1	
22	O-V	R2	XT1		RR1	
48	V-G	T3	T2		E1	6
23	G-V	R3	R2		M1	
49	V-BR	T4				
24	BR-V	R4				
50	V-S	SPARE	SPARE			
25	S-V	SPARE	SPARE			

†For 2-Wire E&M Trunk operation DO NOT connect RR and TR leads

TABLE 10-4 SHELF 2 EXTERNAL PLUG AND JACK CONNECTIONS (CONT'D)

PLUG P8 (Connects to Cross-Connect Field)

Pin	Pair Color	Lead Designation Lines	Lead Designation, CO	DID/TIE	Trunks E&M†	Card Positions
26	W-BL	T5	T3	T2	T2	
1	BL-W	R5	R3	R2	R2	
27	W-O	T6	XT4		TR2	
2	O-W	R6	XT3		RR2	1
28	W-G	T7	T4		E2	
3	G-W	R7	R4		M2	
29	W-BR	T8				
4	BR-W	R8				
30	W-S	T5	T3	T2	T2	
5	S-W	R5	R3	R2	R2	
31	R-BL	T6	XT4		TR2	
6	BL-R	R6	XT3		RR2	2
32	R-O	T7	T4		E2	
7	O-R	R7	R4		M2	
33	R-G	T8				
8	G-R	R8				
34	R-BR	T5	T3	T2	T2	
9	BR-R	R5	R3	R2	R2	
35	R-S	T6	XT4		TR2	
10	S-R	R6	XT3		RR2	
36	BK-BL	T7	T4		E2	3
11	BL-BK	R7	R4		M2	
37	BK-O	T8				
12	O-BK	R8				
38	BK-G	T5	T3	T2	T2	
13	G-BK	R5	R3	R2	R2	
39	BK-BR	T6	XT4		TR2	
14	BR-BK	R6	XT3		RR2	
40	BK-S	T7	T4		E2	4
15	S-BK	R7	R4		M2	
41	Y-BL	T8				
16	BL-Y	R8				
42	Y-O	T5	T3	T2	T2	
17	O-Y	R5	R3	R2	R2	
43	Y-G	T6	XT4		TR2	
18	G-Y	R6	XT3		RR2	
44	Y-BR	T7	T4		E2	5
19	BR-Y	R7	R4		M2	
45	Y-S	T8				
20	S-Y	T8				
46	V-BL	T5	T3	T2	T2	
21	BL-V	R5	R3	R2	R2	
47	V-O	T6	XT4		TR2	
22	O-V	R6	XT3		RR2	
48	V-G	T7	T4		E2	6
23	G-V	R7	R4		M2	
49	V-BR	T8				
24	BR-V	R8				
50	V-S	SPARE	SPARE			
25	S-V	SPARE	SPARE			

†For 2-Wire E&M Trunk operation DO NOT connect RR and TR leads

TABLE 10-4 SHELF 2 EXTERNAL PLUG AND JACK CONNECTIONS (CONT'D)

PLUG P9 (Connects to Cross-Connect Field)

Pin	Pair Color	Lead Designation Lines	Lead Designation, CO	DID/TIE	Trunks E&M†	Card Positions
26	W-BL	T1	T1	T1	T1	
1	BL-W	R1	R1	R1	R1	
27	W-O	T2	XT2		TR1	
2	O-W	R2	XT1		RR1	7
28	W-G	T3	T2		E1	
3	G-W	R3	R2		M1	
29	W-BR	T4				
4	BR-W	R4				
30	W-S	T1	T1	T1	T1	
5	S-W	R1	R1	R1	R1	
31	R-BL	T2	XT2		TR1	
6	BL-R	R2	XT1		RR1	8
32	R-O	T3	T2		E1	
7	O-R	R3	R2		M1	
33	R-G	T4				
8	G-R	R4				
34	R-BR	T1	T1	T1	T1	
9	BR-R	R1	R1	R1	R1	
35	R-S	T2	XT2		TR1	
10	S-R	R2	XT1		RR1	
36	BK-BL	T3	T2		E1	9
11	BL-BK	R3	R2		M1	
37	BK-O	T4				
12	O-BK	R4				
38	BK-G	T1	T1	T1	T1	
13	G-BK	R1	R1	R1	R1	
39	BK-BR	T2	XT2		TR1	
14	BR-BK	R2	XT1		RR1	
40	BK-S	T3	T2		E1	10
15	S-BK	R3	R2		M1	
41	Y-BL	T4				
16	BL-Y	R4				
42	Y-O	T1	T1	T1	T1	
17	O-Y	R1	R1	R1	R1	
43	Y-G	T2	XT2		TR1	
18	G-Y	R2	XT1		RR1	
44	Y-BR	T3	T2		E1	11
19	BR-Y	R3	R2		M1	
45	Y-S	T4				
20	S-Y	R4				
46	V-BL	T1	T1	T1	T1	
21	BL-V	R1	R1	R1	R1	
47	V-O	T2	XT2		TR1	
22	O-V	R2	XT1		RR1	
48	V-G	T3	T2		E1	12
23	G-V	R3	R2		M1	
49	V-BR	T4				
24	BR-V	R4				
50	V-S	SPARE	SPARE			
25	S-V	SPARE	SPARE			

†For 2-Wire E&M Trunk operation DO NOT connect RR and TR leads

TABLE 10-4 SHELF 2 EXTERNAL PLUG AND JACK CONNECTIONS (CONT'D)

PLUG P10 (Connects to Cross-Connect Field)

Pin	Pair Color	Lead Designation Lines	Lead Designation, CO	DID/TIE	Trunks E&M†	Card Positions
26	W-BL	T5	T3	T2	T2	
1	BL-W	R5	R3	R2	R2	
27	W-O	T6	XT4		TR2	
2	O-W	R6	XT3		RR2	7
28	W-G	T7	T4		E2	
3	G-W	R7	R4		M2	
28	W-BR	T8				
4	BR-W	R8				
30	W-S	T5	T3	T2	T2	
5	S-W	R5	R3	R2	R2	
31	R-BL	T6	XT4		TR2	
6	BL-R	R6	XT3		RR2	8
32	R-O	T7	T4		E2	
7	O-R	R7	R4		M2	
33	R-G	T8				
8	G-R	R8				
34	R-BR	T5	T3	T2	T2	
9	BR-R	R5	R3	R2	R2	
35	R-S	T6	XT4		TR2	
10	S-R	R6	XT3		RR2	
36	BK-BL	T7	T4		E2	9
11	BL-BK	R7	R4		M2	
37	BK-O	T8				
12	O-BK	R8				
38	BK-G	T5	T3	T2	T2	
13	G-BK	R5	R3	R2	R2	
39	BK-BR	T6	XT4		TR2	
14	BR-BK	R6	XT3		RR2	
40	BK-S	T7	T4		E2	10
15	S-BK	R7	R4		M2	
41	Y-BL	T8				
16	BL-Y	R8				
42	Y-O	T5	T3	T2	T2	
17	O-Y	R5	R3	R2	R2	
43	Y-G	T6	XT4		TR2	
18	G-Y	R6	XT3		RR2	
44	Y-BR	T7	T4		E2	11
19	BR-Y	R7	R4		M2	
45	Y-S	T8				
20	S-Y	T8				
46	V-BL	T5	T3	T2	T2	
21	BL-V	R5	R3	R2	R2	
47	V-O	T6	XT4		TR2	
22	O-V	R6	XT3		RR2	
48	V-G	T7	T4		E2	12
23	G-V	R7	R4		M2	
49	V-BR	T8				
24	BR-V	R8				
50	V-S	SPARE	SPARE			
25	S-V	SPARE	SPARE			

†For 2-Wire E&M Trunk operation DO NOT connect RR and TR leads

TABLE 10-5 CONSOLE INTERFACE BOARD PLUG AND JACK CONNECTIONS (SX-200 ONLY)

JACK J22
Connects to Attendant Console 1)

PLUG P23
(Connects to Jack J15)

Pin	Pair Color	Lead Designation	Pin	Pair Color	Lead Designation
26	W-BL	ELECTROSTATIC GROUND	26	W-BL	ELECTROSTATIC GROUND
1	BL-W	ELECTROSTATIC GROUND	1	BL-W	ELECTROSTATIC GROUND
27	W-O	ELECTROSTATIC GROUND	27	W-O	ELECTROSTATIC GROUND
2	O-W	ELECTROSTATIC GROUND	2	O-W	ELECTROSTATIC GROUND
28	W-G	ELECTROSTATIC GROUND	28	W-G	ELECTROSTATIC GROUND
3	G-W	ELECTROSTATIC GROUND	3	G-W	ELECTROSTATIC GROUND
29	W-BR	ELECTROSTATIC GROUND	29	W-BR	ELECTROSTATIC GROUND
4	BR-W	ELECTROSTATIC GROUND	4	BR-W	ELECTROSTATIC GROUND
30	W-S	DATA IN COMMON	30	W-S	DATA IN COMMON
5	S-W	DATA IN	5	S-W	DATA IN
31	R-BL	ELECTROSTATIC GROUND	31	R-BL	ELECTROSTATIC GROUND
6	BL-R	ELECTROSTATIC GROUND	6	BL-R	ELECTROSTATIC GROUND
32	R-O	DATA OUT COMMON	32	R-O	DATA OUT COMMON
7	R-O	DATA OUT	7	R-O	DATA OUT
33	R-G	ELECTROSTATIC GROUND	33	R-G	ELECTROSTATIC GROUND
8	G-R	ELECTROSTATIC GROUND	8	G-R	ELECTROSTATIC GROUND
34	R-BR	ELECTROSTATIC GROUND	34	R-BR	ELECTROSTATIC GROUND
9	BR-R	ELECTROSTATIC GROUND	9	BR-R	ELECTROSTATIC GROUND
35	R-S	CUTOVER SWB	35	R-S	CUTOVER SWB
10	S-R	CUTOVER SWA	10	S-R	CUTOVER SWA
36	BK-BL	ELECTROSTATIC GROUND	36	BK-BL	ELECTROSTATIC GROUND
11	BL-BK	ELECTROSTATIC GROUND	11	BL-BK	ELECTROSTATIC GROUND
37	BK-O	MAJOR ALARM	37	BK-O	MAJOR ALARM
12	O-BK	MAJOR ALARM	12	O-BK	MAJOR ALARM
38	BK-G	TIP	38	BK-G	TIP
13	G-BK	RING	13	G-BK	RING
39	BK-BR	ELECTROSTATIC GROUND	39	BK-BR	ELECTROSTATIC GROUND
14	BR-BK	ELECTROSTATIC GROUND	14	BR-BK	ELECTROSTATIC GROUND
40	BK-S	ELECTROSTATIC GROUND	40	BK-S	ELECTROSTATIC GROUND
15	S-BK	ELECTROSTATIC GROUND	15	S-BK	ELECTROSTATIC GROUND
41	Y-BL	ELECTROSTATIC GROUND	41	Y-BL	ELECTROSTATIC GROUND
16	BL-Y	ELECTROSTATIC GROUND	16	BL-Y	ELECTROSTATIC GROUND
42	Y-O	ELECTROSTATIC GROUND	42	Y-O	ELECTROSTATIC GROUND
17	O-Y	ELECTROSTATIC GROUND	17	O-Y	ELECTROSTATIC GROUND
43	Y-G	0 V	43	Y-G	0 V
18	G-Y	-48 V	18	G-Y	-48 V
44	Y-BR	0 V	44	Y-BR	0 V
19	BR-Y	-48 V	19	BR-Y	-48 V
45	Y-S	0 V	45	Y-S	0 V
20	S-Y	-48 V	20	S-Y	-48 V
46	V-BL	0 V	46	V-BL	0 V
21	BL-V	-48 V	21	BL-V	-48 V
47	V-O	0 V	47	V-O	0 V
22	O-V	-48 V	22	O-V	-48 V
48	V-G	0 V	48	V-G	0 V
23	G-V	-48 V	23	G-V	-48 V
49	V-BR	0 V	49	V-BR	0 V
24	BR-V	-48 V	24	BR-V	-48 V
50	V-S	0 V	50	V-S	0 V
25	S-V	-48 V	25	S-V	-48 V

TABLE 10-5 CONSOLE INTERFACE BOARD PLUG AND JACK CONNECTIONS (SX-200 ONLY)

JACK J24
(Connects to Attendant Console 2)

Pin	Pair Color	Lead Designation
26	W-BL	ELECTROSTATIC GROUND
1	BL-W	ELECTROSTATIC GROUND
27	W-O	ELECTROSTATIC GROUND
2	O-W	ELECTROSTATIC GROUND
28	W-G	ELECTROSTATIC GROUND
3	G-W	ELECTROSTATIC GROUND
29	W-BR	ELECTROSTATIC GROUND
4	BR-W	ELECTROSTATIC GROUND
30	W-S	DATA IN COMMON
5	S-W	DATA IN
31	R-BL	ELECTROSTATIC GROUND
6	BL-R	ELECTROSTATIC GROUND
32	R-O	DATA OUT COMMON
7	R-O	DATA OUT
33	R-G	ELECTROSTATIC GROUND
8	G-R	ELECTROSTATIC GROUND
34	R-BR	ELECTROSTATIC GROUND
9	BR-R	ELECTROSTATIC GROUND
35	R-S	CUTOVER SWB
10	S-R	CUTOVER SWA
36	BK-BL	ELECTROSTATIC GROUND
11	BL-BK	ELECTROSTATIC GROUND
37	BK-O	MAJOR ALARM
12	O-BK	MAJOR ALARM
38	BK-G	TIP
13	G-BK	RING
39	BK-BR	ELECTROSTATIC GROUND
14	BR-BK	ELECTROSTATIC GROUND
40	BK-S	ELECTROSTATIC GROUND
15	S-BK	ELECTROSTATIC GROUND
41	Y-BL	ELECTROSTATIC GROUND
16	BL-Y	ELECTROSTATIC GROUND
42	Y-O	ELECTROSTATIC GROUND
17	O-Y	ELECTROSTATIC GROUND
43	Y-G	0 V
18	G-Y	-48 V
44	Y-BR	0 V
19	BR-Y	-48 V
45	Y-S	0 V
20	S-Y	-48 V
46	V-BL	0 V
21	BL-V	-48 V
47	V-O	0 V
22	O-V	-48 V
48	V-G	0 V
23	G-V	-48 V
49	V-BR	0 V
24	BR-V	-48 V
50	V-S	0 V
25	S-V	-48 V

PLUG P25
(Connects to Jack J14)

Pin	Pair Color	Lead Designation
26	W-BL	ELECTROSTATIC GROUND
1	BL-W	ELECTROSTATIC GROUND
27	W-O	ELECTROSTATIC GROUND
2	O-W	ELECTROSTATIC GROUND
28	W-G	ELECTROSTATIC GROUND
3	G-W	ELECTROSTATIC GROUND
29	W-BR	ELECTROSTATIC GROUND
4	BR-W	ELECTROSTATIC GROUND
30	W-S	DATA IN COMMON
5	S-W	DATA IN
31	R-BL	ELECTROSTATIC GROUND
6	BL-R	ELECTROSTATIC GROUND
32	R-O	DATA OUT COMMON
7	R-O	DATA OUT
33	R-G	ELECTROSTATIC GROUND
8	G-R	ELECTROSTATIC GROUND
34	R-BR	ELECTROSTATIC GROUND
9	BR-R	ELECTROSTATIC GROUND
35	R-S	CUTOVER SWB
10	S-R	CUTOVER SWA
36	BK-BL	ELECTROSTATIC GROUND
11	BL-BK	ELECTROSTATIC GROUND
37	BK-O	MAJOR ALARM
12	O-BK	MAJOR ALARM
38	BK-G	TIP
13	G-BK	RING
39	BK-BR	ELECTROSTATIC GROUND
14	BR-BK	ELECTROSTATIC GROUND
40	BK-S	ELECTROSTATIC GROUND
15	S-BK	ELECTROSTATIC GROUND
41	Y-BL	ELECTROSTATIC GROUND
16	BL-Y	ELECTROSTATIC GROUND
42	Y-O	ELECTROSTATIC GROUND
17	O-Y	ELECTROSTATIC GROUND
43	Y-G	0 V
18	G-Y	-48 V
44	Y-BR	0 V
19	BR-Y	-48 V
45	Y-S	0 V
20	S-Y	-48 V
46	V-BL	0 V
21	BL-V	-48 V
47	V-O	0 V
22	O-V	-48 V
48	V-G	0 V
23	G-V	-48 V
49	V-BR	0 V
24	BR-V	-48 V
50	V-S	0 V
25	S-V	-48 V

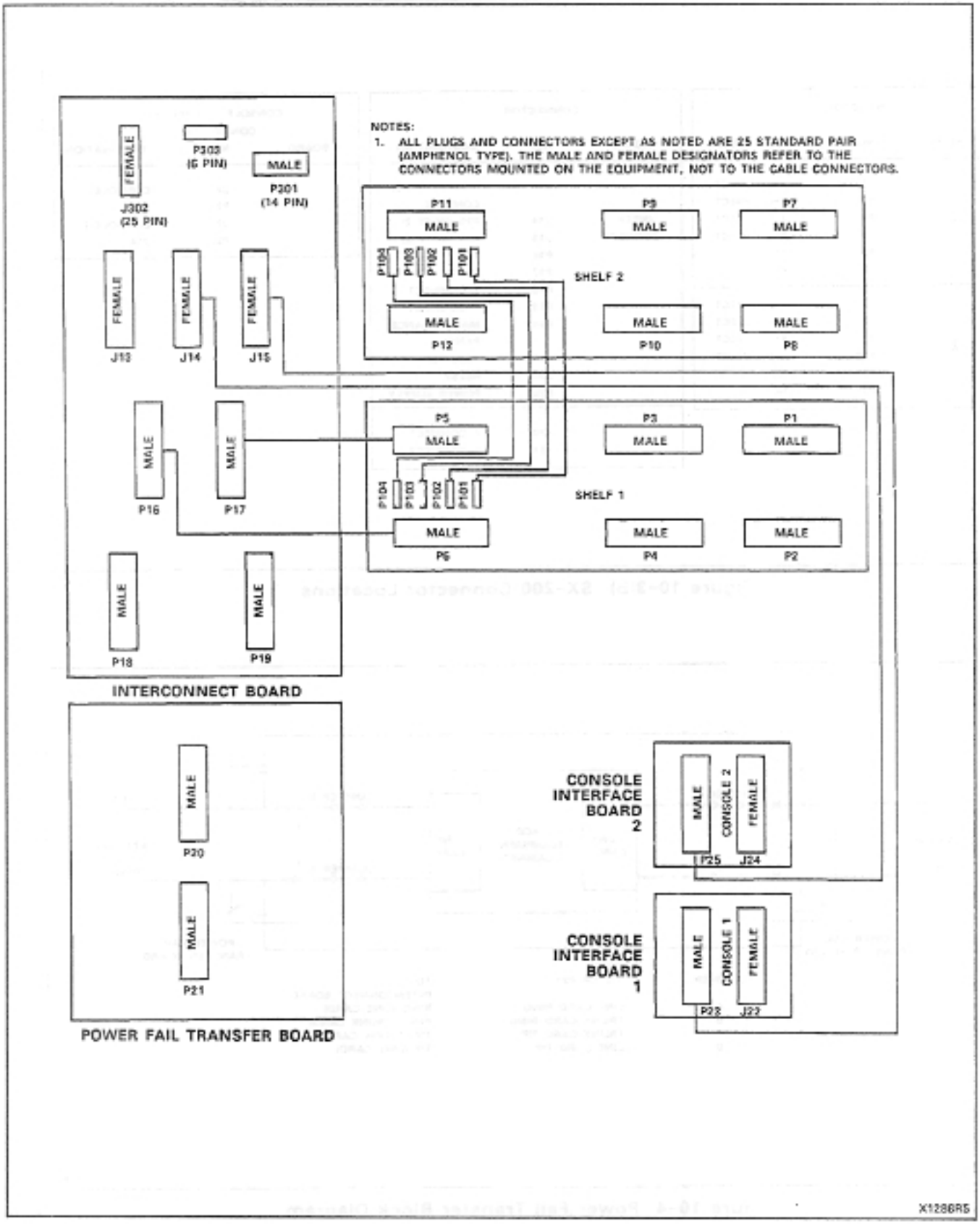


Figure 10-3(a) SX-200 Connector Locations

CONNECTOR		
SHELF	NO.	DESTINATION
1	P1	X-CONNECT
	P2	X-CONNECT
	P3	X-CONNECT
	P4	X-CONNECT
	P5	P17
	P6	P18
2	P7	X-CONNECT
	P8	X-CONNECT
	P9	X-CONNECT
	P10	X-CONNECT
	P11	NC
	P12	NC

CONNECTOR		
BOARD	NO.	DESTINATION
INTER-CONNECT	J13	MAINTENANCE CONSOLE
	J14	P25 (NOTE 2)
	J15	P23 (NOTE 2)
	P16	P6
	P17	P5
	P18	X-CONNECT
	P19	X-CONNECT
	P301	MAINTENANCE PANEL
	P302	RS232 OR
	J302	RS232
	P303	POWER SUPPLY
	P20	X-CONNECT
	P21	X-CONNECT

CONSOLE INTERFACE CONNECTOR		
BOARD	NO.	DESTINATION
	J22	CONSOLE 1
	P23	J15
	J24	CONSOLE 2
	P25	J14

Figure 10-3(b) SX-200 Connector Locations

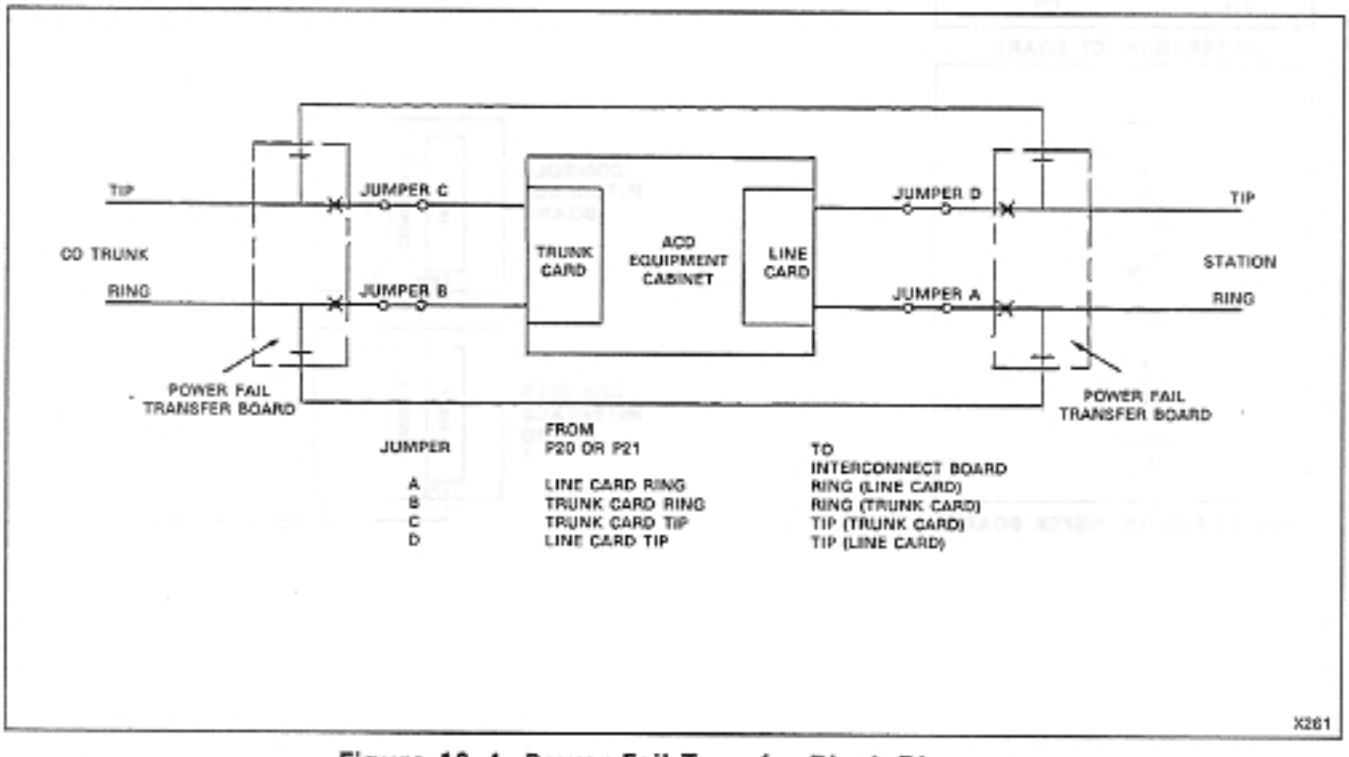


Figure 10-4 Power Fail Transfer Block Diagram

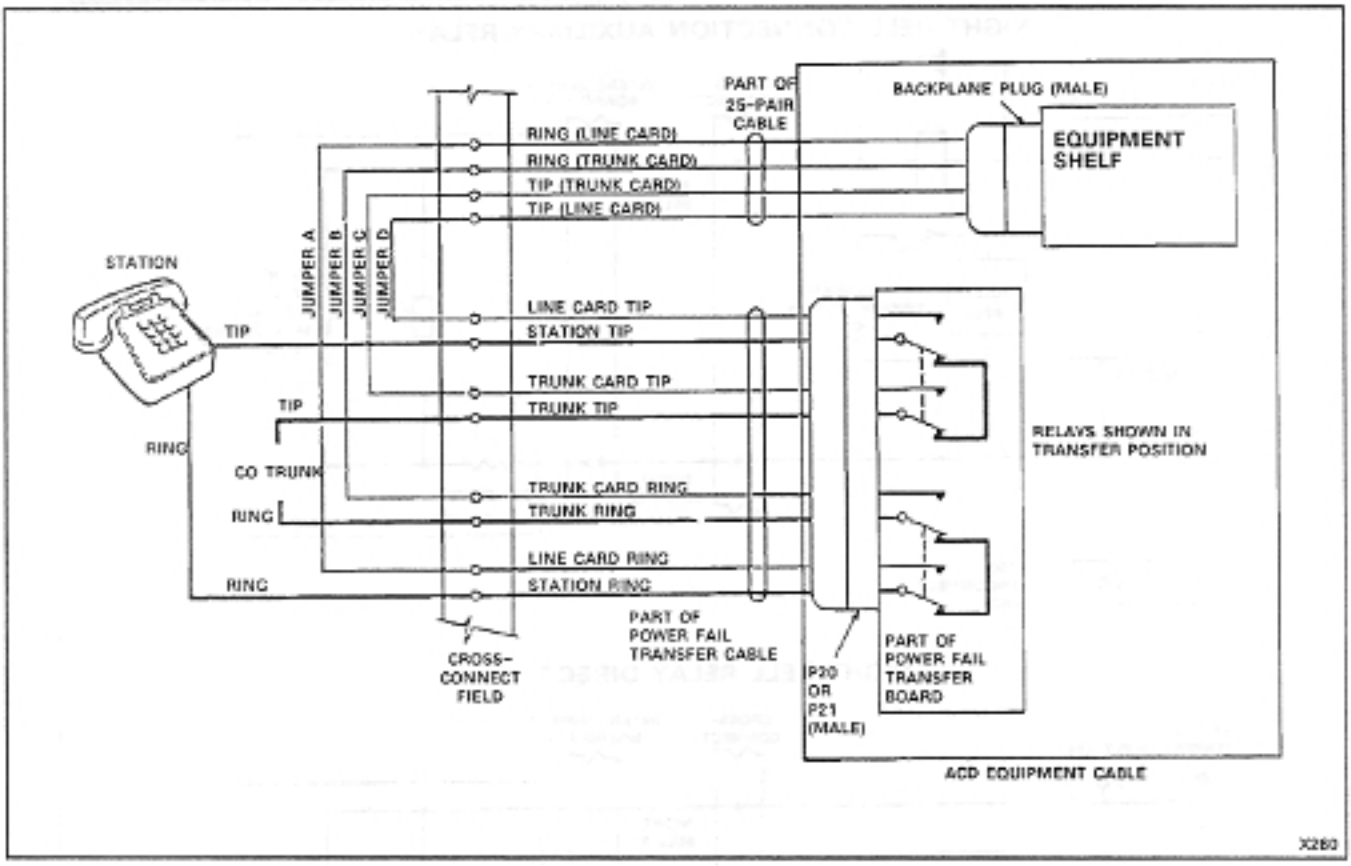
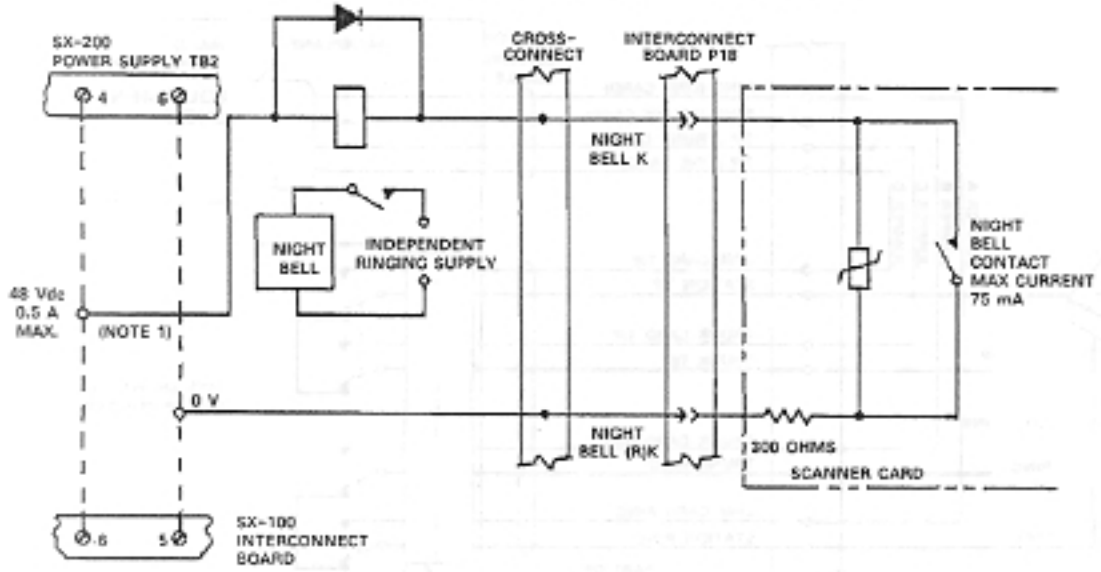
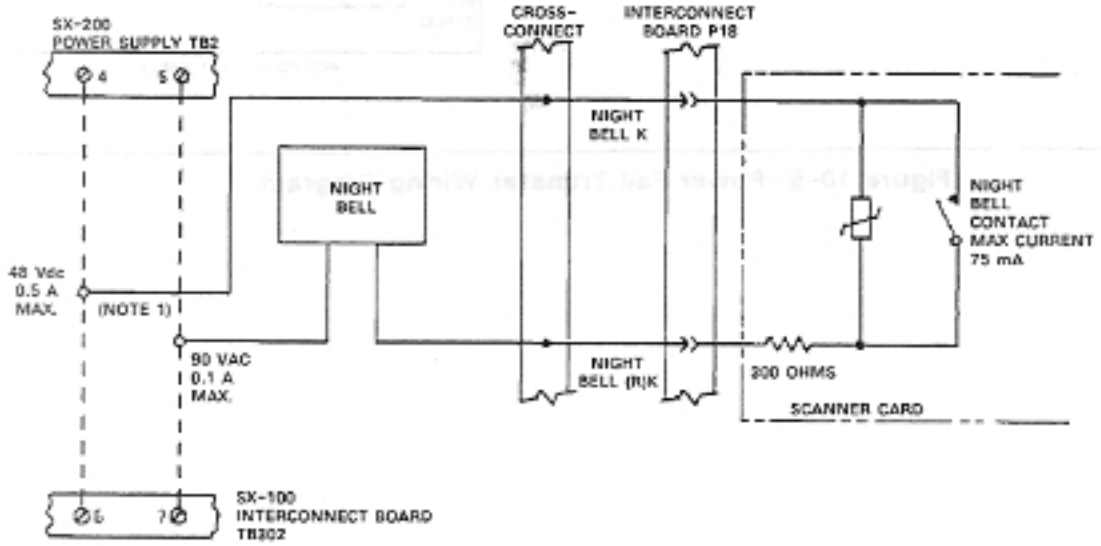


Figure 10-5 Power Fail Transfer Wiring Diagram

NIGHT BELL CONNECTION AUXILIARY RELAY



NIGHT BELL RELAY DIRECT



INTERCONNECT BOARD PLUG P18							
PIN	DESTINATION	PIN	DESTINATION	PIN	DESTINATION	PIN	DESTINATION
46	NIGHT BELL 1 K1	44	NIGHT BELL 2 K2	50	NIGHT BELL 3 K3	49	NIGHT SERVICE A K4
21	NIGHT BELL 1 R(K1)	19	NIGHT BELL 2 R(K2)	25	NIGHT BELL 3 R(K3)	24	NIGHT SERVICE B(K4)

NOTE 1: THE FACILITY IS WIRED TO EITHER THE SX-100 OR THE SX-200 TERMINAL BLOCKS AS INDICATED BY THE DASHED LINES.
2: THE NIGHT SERVICE RELAY K4 CONTACTS ARE IDENTICAL TO THE NIGHT BELL CONTACT ARRANGEMENTS. IT MAY BE USED TO OPERATE A LAMP TO SHOW WHEN THE ACD IS IN NIGHT SERVICE, OR SIGNAL THE CO FOR THIS CONDITION.

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Figure 10-6 Night Bell Connections

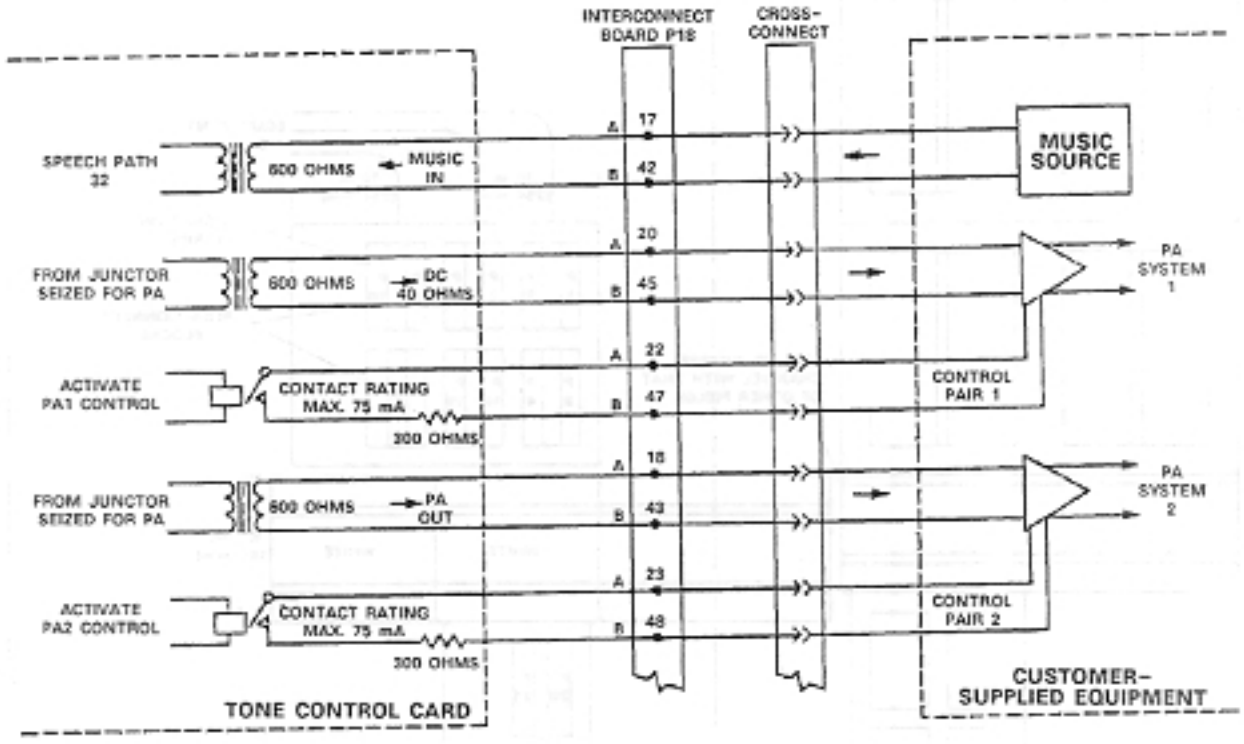
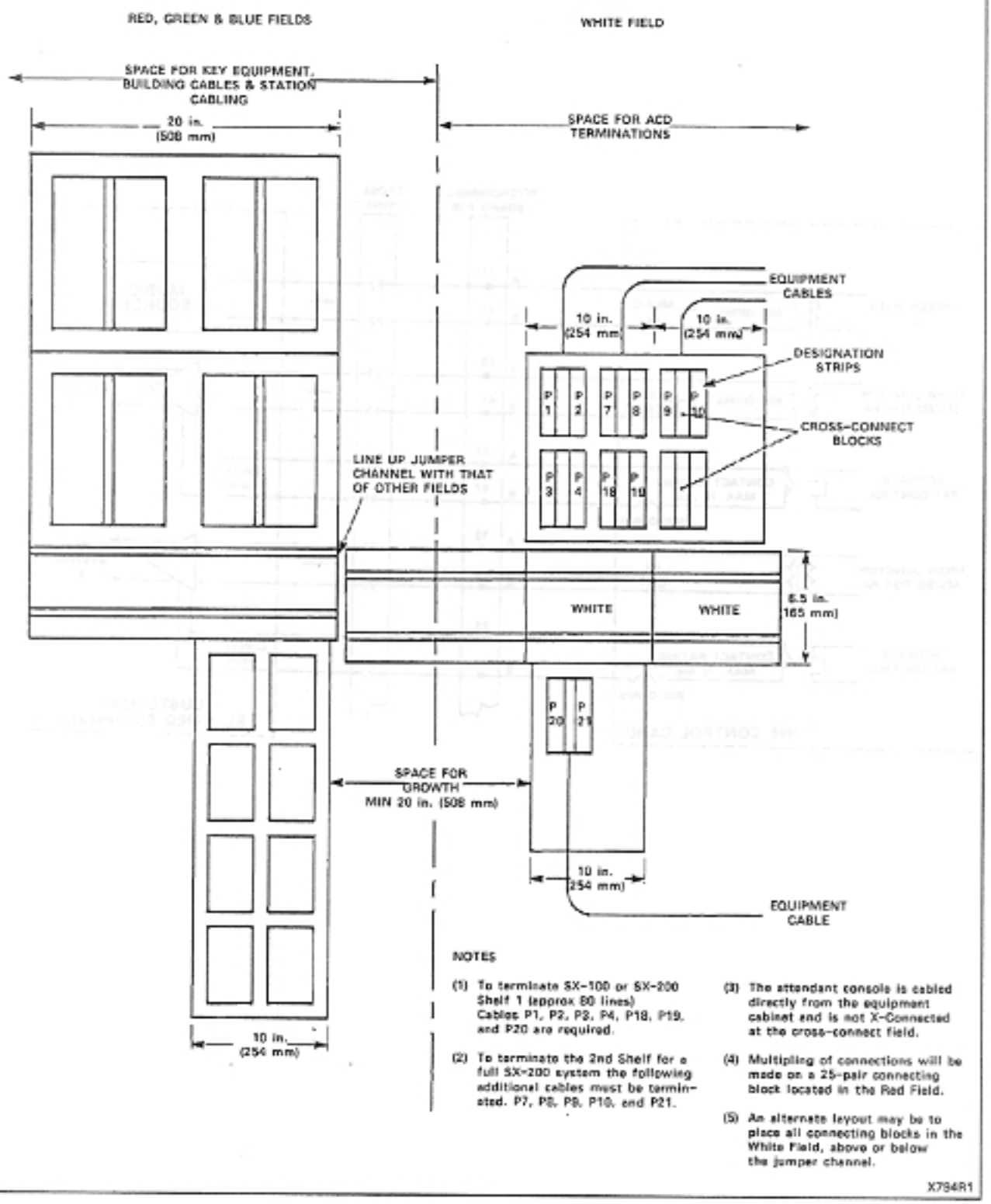


Figure 10-7 Music and PA Connections



NOTES

(1) To terminate SX-100 or SX-200 Shelf 1 (approx 80 lines) Cables P1, P2, P3, P4, P18, P19, and P20 are required.

(2) To terminate the 2nd Shelf for a full SX-200 system the following additional cables must be terminated. P7, P8, P9, P10, and P21.

(3) The attendant console is cabled directly from the equipment cabinet and is not X-Connected at the cross-connect field.

(4) Multipling of connections will be made on a 25-pair connecting block located in the Red Field.

(5) An alternate layout may be to place all connecting blocks in the White Field, above or below the jumper channel.

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Figure 11-1 Typical Terminal Layout

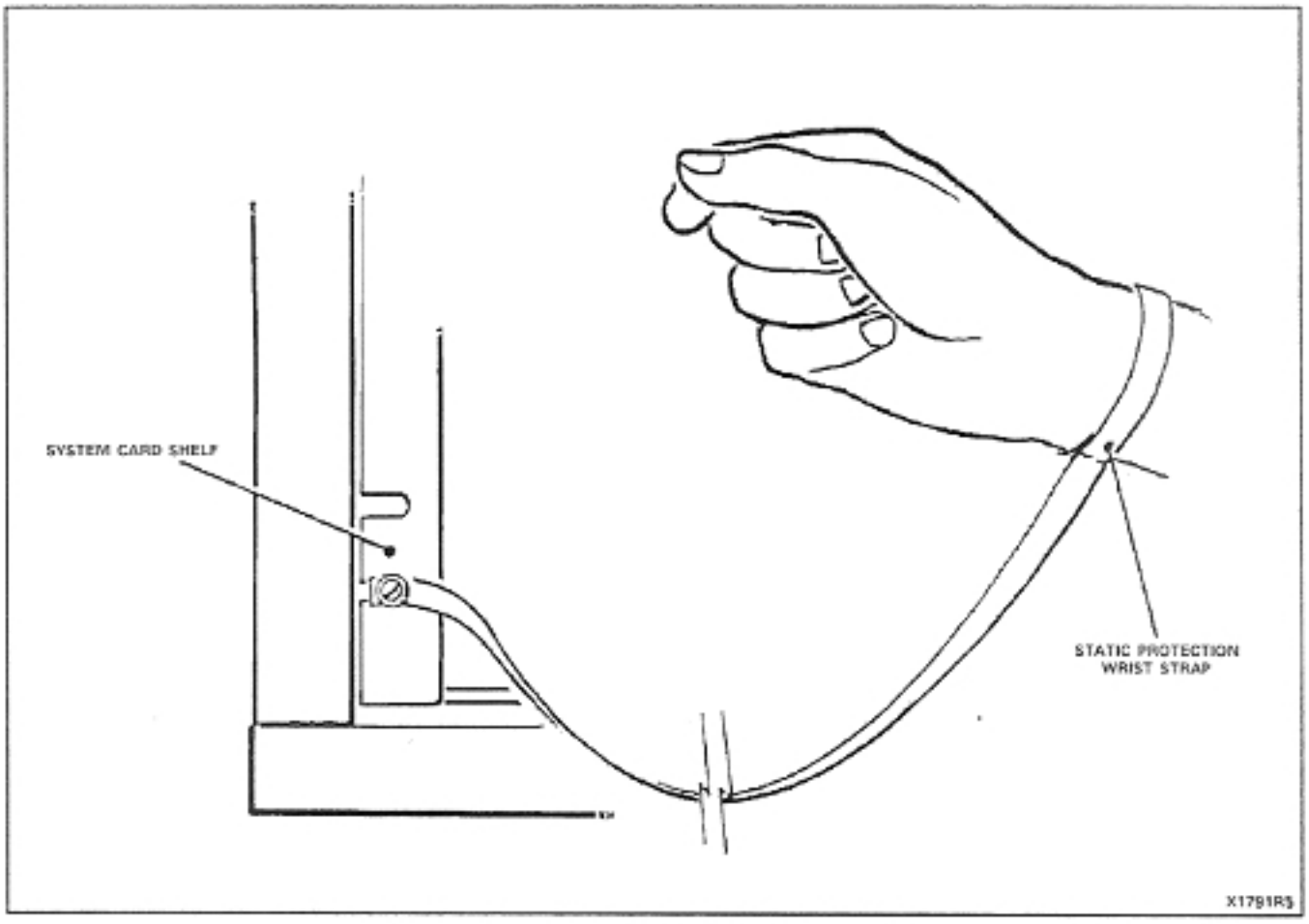

Figure 12-1 Static Protection Ground Strap

APPENDIX 1

MITEL ACTION PROCEDURES

GENERAL

A1.01 Task oriented functions in this Section are implemented using MITEL Action Procedures (MAP's).

A1.02 A MAP is a step-by-step procedure using a flow chart principle, written and illustrated where necessary to a level of detail that allows both experienced and inexperienced personnel to carry out the tasks detailed. A MAP contains two levels of information as follows:

(a) For experienced personnel, a series of steps (level one) each numbered (n) and annotated with minimal information.

(b) For inexperienced personnel, each step referred to in (a) above is amplified by a connected series of numbered substeps (nA) (level two).

A1.03 A typical example of a MAP is shown in Figure A1-1, with the two levels detailed.

MAP SYMBOLS

A1.04 There are four basic symbol shapes which may be used in a MAP, and are defined as follows.

A1.05 AND Block: Used to indicate a level one step that must be performed. Consists of a square with the word AND centered in the block.

A1.06 OR Block: Used to indicate a choice of level one steps, one of which must be performed. Consists of a rectangle, with the text centered in the block, and with the word OR appearing between the alternative operations.

A1.07 The rectangle is also used to border instructions which imply that the operative must perform a task outside the scope of the MAP. The text is centered in the rectangle.

A1.08 DECISION Block: Used to indicate a decision within the level one steps which must be made. The symbol is based on a hexagon with the top and bottom sides extended. Decision text is centered in the symbol.

A1.09 START/FINISH/JUMP TO Block: Used to indicate the start and finish of a MAP. Also used to indicate "jump to" points within the MAP, for example "go to (n)" or "from (n)" or "return to (n)". The

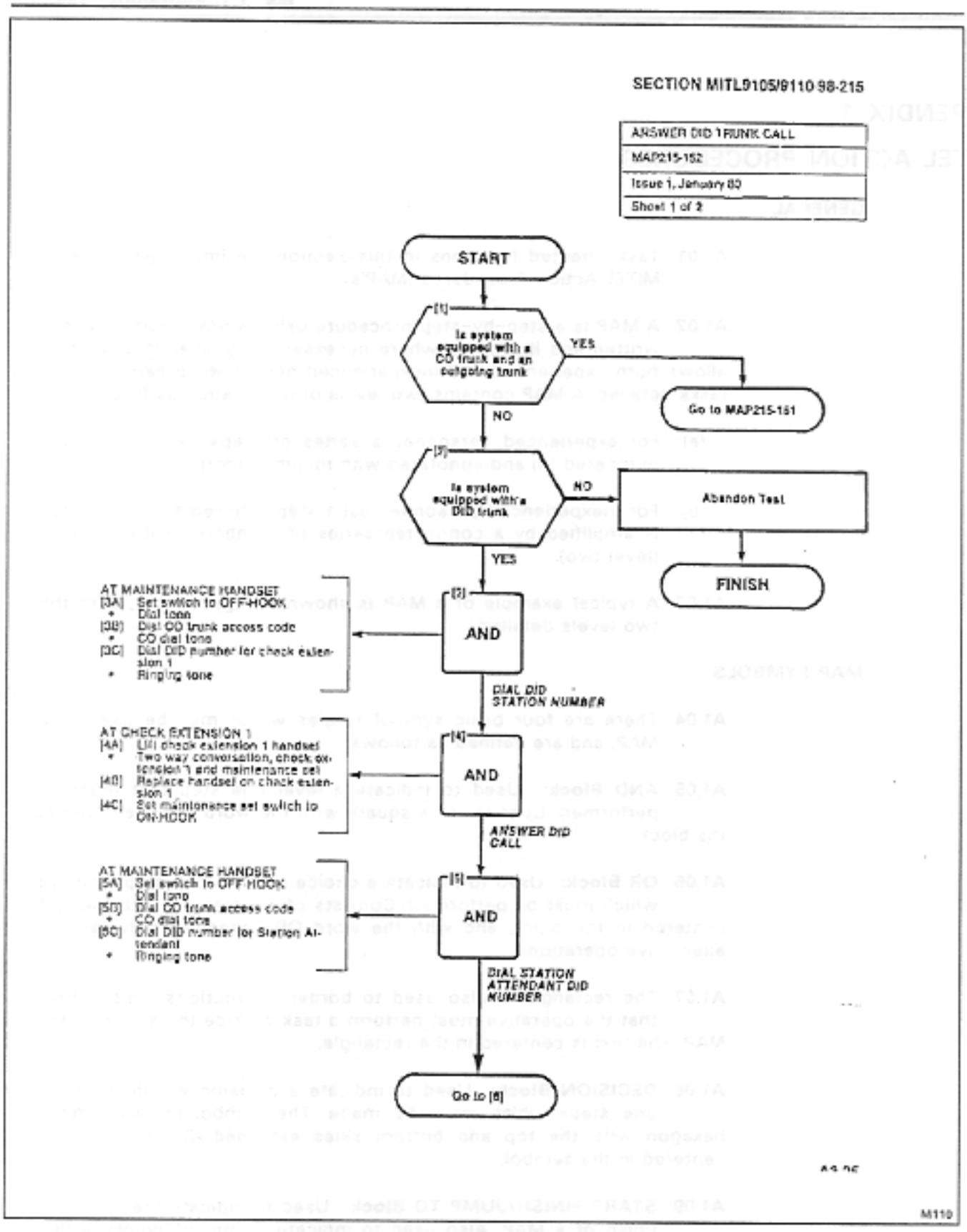

Figure A1-1 Typical MAP Page

symbol is a rectangle with semicircular ends. Text is centered in the symbol.

THE OPERATOR'S USE OF MAP'S

Experienced Operator

A1.10 For the experienced operator to complete a task using a MAP, reference to the sequential short form level one steps is usually all that is necessary. Using Figure A1-1 as an example, the experienced operator would proceed as follows.

A1.11 At (1) makes a decision based on the information within the block. If the answer is YES, the operator must proceed to a different MAP. If the answer is NO, the operator is faced with another decision at block (2).

A1.12 At (2) if the decision is NO, there is no requirement to proceed further and the test is abandoned. This naturally results in a FINISH block. If the decision is YES, the operator proceeds to (3) and (4) in succession (i.e. dials the DID station number and completes the call to the check extension).

A1.13 The description of the instructions carried out in A1.05 and A1.06 have assumed that the level of competence of the operator is such that short form level one steps contain sufficient information, and therefore the operator reads only the center column of the MAP, top to bottom of the page.

Inexperienced Operator

A1.14 If the operator's experience is such that the level one instructions do not contain sufficient information, the level two substeps should be referred to as follows.

A1.15 Using Figure A1-1 as an example, the path followed should be:

(a) At (1) and (2) make the decisions called for at these steps as before.

(b) At step (3) dial the DID station number by performing substeps (3A), (3B) and (3C).

In terms of steps and substeps, the operative follows a decision, decision then step and substep paths in the example shown.

TOOLS, TEST EQUIPMENT AND SPECIAL INSTRUCTIONS

A1.16 Any tools, test equipment or special instructions that the operator requires or needs to know are stated on the first page of each MAP. If the MAP is long, and contains a number of subprocedures, these are listed in synopsis form on the first page.

APPENDIX 2
FCC INTERCONNECTION REQUIREMENTS

A. TELEPHONE COMPANY INTERCONNECTION

General

A2.01 This equipment has been approved by the Federal Communications Commission (FCC) as not being harmful to the telephone network when connected directly to the telephone lines through the standard 50-pin blue ribbon prescribed by the FCC Rule. This section is applicable to telephone interconnection in the United States.

Notification

A2.02 Prior to the interconnection of this equipment, the local telephone company is to be notified; inform the company that you have FCC-registered equipment which you wish to connect to their trunks. Give them the following information:

- The PABX being connected is a MITEL Incorporated Model SX-100 or a Model SX-200.
- The 14-digit FCC Registration Number for the SX-100 is BN285B64724MFE.
- The 14-digit FCC Registration Number for the SX-200 is BN285B64724MFE.
- The Ringer Equivalence number which is 2.1B.
- The jacks or connectors required are RJ2IX, RJ2EX or RJ2GX as shown in Table A2-1.

Connection Limitations

A2.03 Due to the FCC Part 68 Rule, no connection can be made to party lines and to coin telephone service.

Network Changes

A2.04 The telephone company may make changes to its communication service; such changes may include the change of trunk circuits, changes in the operational characteristics of its trunk, etc. Before doing this, however, the company shall provide official notification, so that the operation of the PABX service will not be interrupted.

Maintenance Limitations

A2.05 This equipment has been registered with the FCC for direct connection to the telephone network. Under the FCC Program, the user is restricted from making any changes or repairs and from performing any maintenance operations other than those specifically included in this Standard Practice.

A2.06 Circuit cards may be removed by the user; however, replacement cards are to be supplied only by MITEL or its authorized agent. No field repair of circuit cards by the user is authorized.

A2.07 No cabling or wiring changes within the console are permitted by the user. Plug-ended cables, as detailed in this Standard Practice, are to be used for all external connections between the console and the telephone company interface jack.

A2.08 Power supply components and cabling is only to be changed or maintained by MITEL or by an authorized agent of MITEL.

Trouble Corrections

A2.09 Most troubles are diagnosed by the circuitry of the system, and the console readout indicates the circuit and card that is malfunctioning. Card replacement can be made by the user.

A2.10 For more complex malfunctions, appropriate field service is provided by MITEL or its authorized agents.

TABLE A2-1
USOC CONNECTOR PIN DESIGNATIONS

Pin	Pair Color	Connector Type RJ2IX	RJ2EX	RJ2GX
26	W-BL	T	T	T
1	BL-W	R	R	R
27	W-O	T	E	T1
2	O-W	R	M	R1
28	W-G	T	T	E
3	G-W	R	R	M
29	W-BR	T	E	T
4	BR-W	R	M	R
30	W-S	T	T	T1
5	S-W	R	R	R1
31	R-BL	T	E	E
6	BL-R	R	M	M
32	R-O	T	T	T
7	O-R	R	R	R
33	R-G	T	E	T1
8	G-R	R	M	R1
34	R-BR	T	T	E
9	BR-R	R	R	M
35	R-S	T	T	E
10	S-R	R	M	R
36	BK-BL	T	T	T1
11	BL-BK	R	R	R1
37	BK-O	T	E	E
12	O-BK	R	M	M

Pin	Pair Color	Connector Type RJ2IX	RJ2EX	RJ2GX
38	BK-G	T	T	T
13	G-BK	R	R	R
39	BK-BR	T	E	T1
14	BR-BK	R	M	R1
40	BK-S	T	T	E
15	S-BK	R	R	M
41	Y-BL	T	E	T
16	BL-Y	R	M	R
42	Y-O	T	T	T1
17	O-Y	R	R	R1
43	Y-G	T	E	E
18	G-Y	R	M	M
44	Y-BR	T	T	T
19	BR-Y	R	R	R
45	Y-S	T	E	T1
20	S-Y	R	M	R1
46	V-BL	T	T	E
21	BL-V	R	R	M
47	V-O	T	E	T
22	O-V	R	M	R
48	V-G	T	T	T1
23	G-V	R	R	R1
49	V-BR	T	E	E
24	BR-V	R	M	M
50	V-S	SPARE		
25	S-V	SPARE		

Remarks

The types of Universal Service Order Code (USOC) connectors shown have pin designations according to type of interface required by the Telephone Company. Use of these connectors are determined as follows:

RJ2IX: 2-wire loop, or ground start trunk
2-wire reverse battery (DID)
2-wire off-premises extension
(Class A through E)
2-wire Automatic Identified Outward
Dialing (AIOD)
2-wire message register

RJ2EX: 2-wire tie trunk with E and M Type I signaling

RJ2GX: 4-wire tie trunk with E and M Type I signaling

APPENDIX 3

SX-100 INSTALLATION PROCEDURES

1. GENERAL

A3.01 The MAP's contained in this Appendix detail the procedures to be performed to complete the installation of an SX-100 ACD System.

TABLE A3-1
SX-100 INSTALLATION PROCEDURE

Step	Procedure	Reference
1	Unpack SX-100 Equipment	MAP200-301
2	Unpack Console(s)	MAP200-302
3	Install Console Faceplate Designations	MAP200-303
4	Inspect Equipment	MAP200-304
5	Install and Connect Equipment	MAP200-305
6	Set Card Switches (Appendix 5)	MAP200-306
7	Power-Up System (See Note)	MAP200-307
8	Program System	Section MITL9105/9110-090-210-NA
9	Perform System Tests	Section MITL9105/9110-090-215-NA
10	Perform Extension Test	Section MITL9105/9110-090-320-NA

Note: Appendix 6 lists miscellaneous installation requirements which may be required prior to power-up of system. This appendix should be reviewed for applicability.

UNPACK SX-100 EQUIPMENT
MAP200-301
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TOOLS REQUIRED

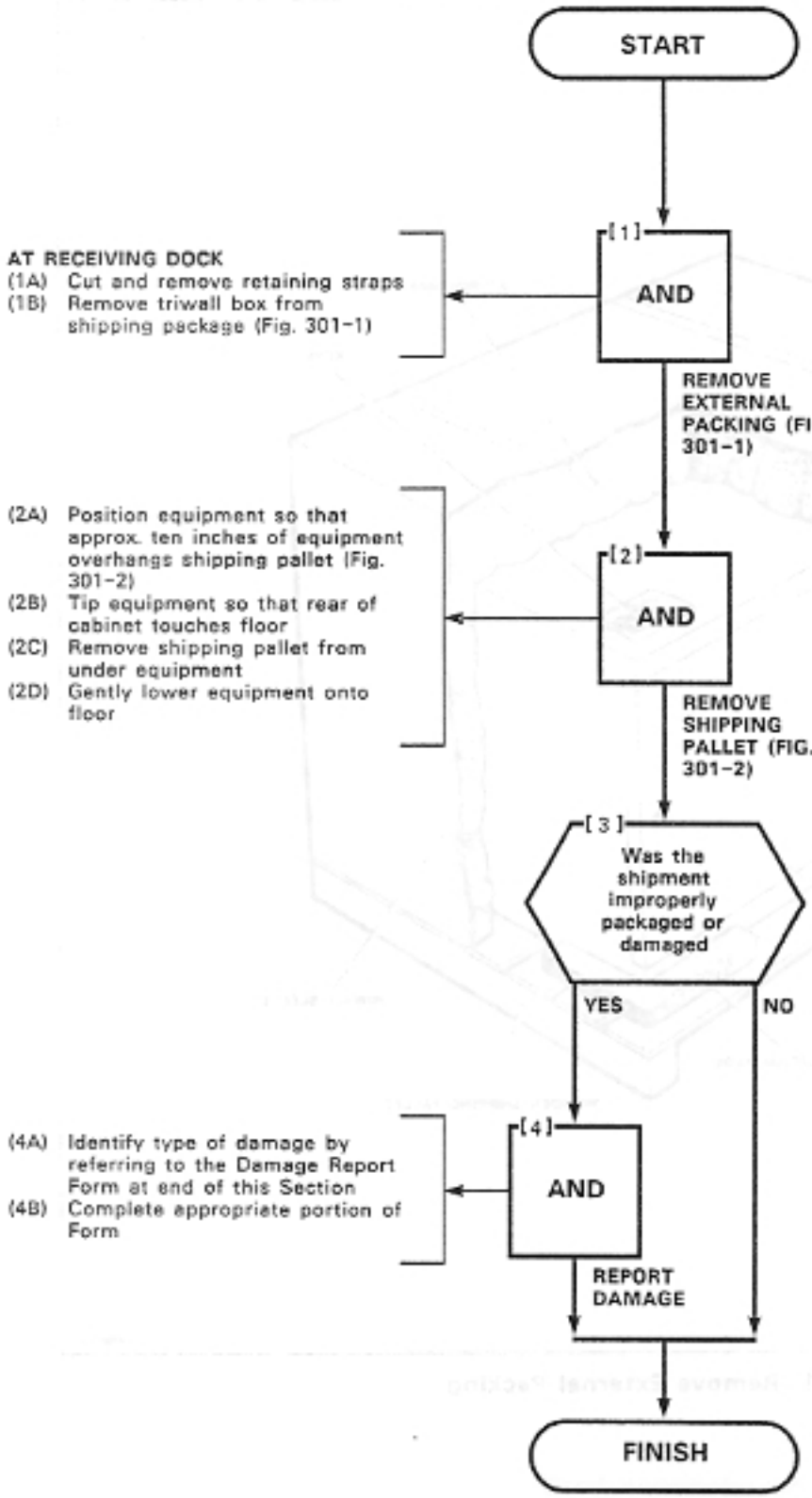
1. Set of strap cutters

WARNING

Gloves must be worn when unpacking equipment cabinet.

CAUTION

Care must be taken while moving equipment to avoid damage.



UNPACK SX-100 EQUIPMENT
MAP200- 301
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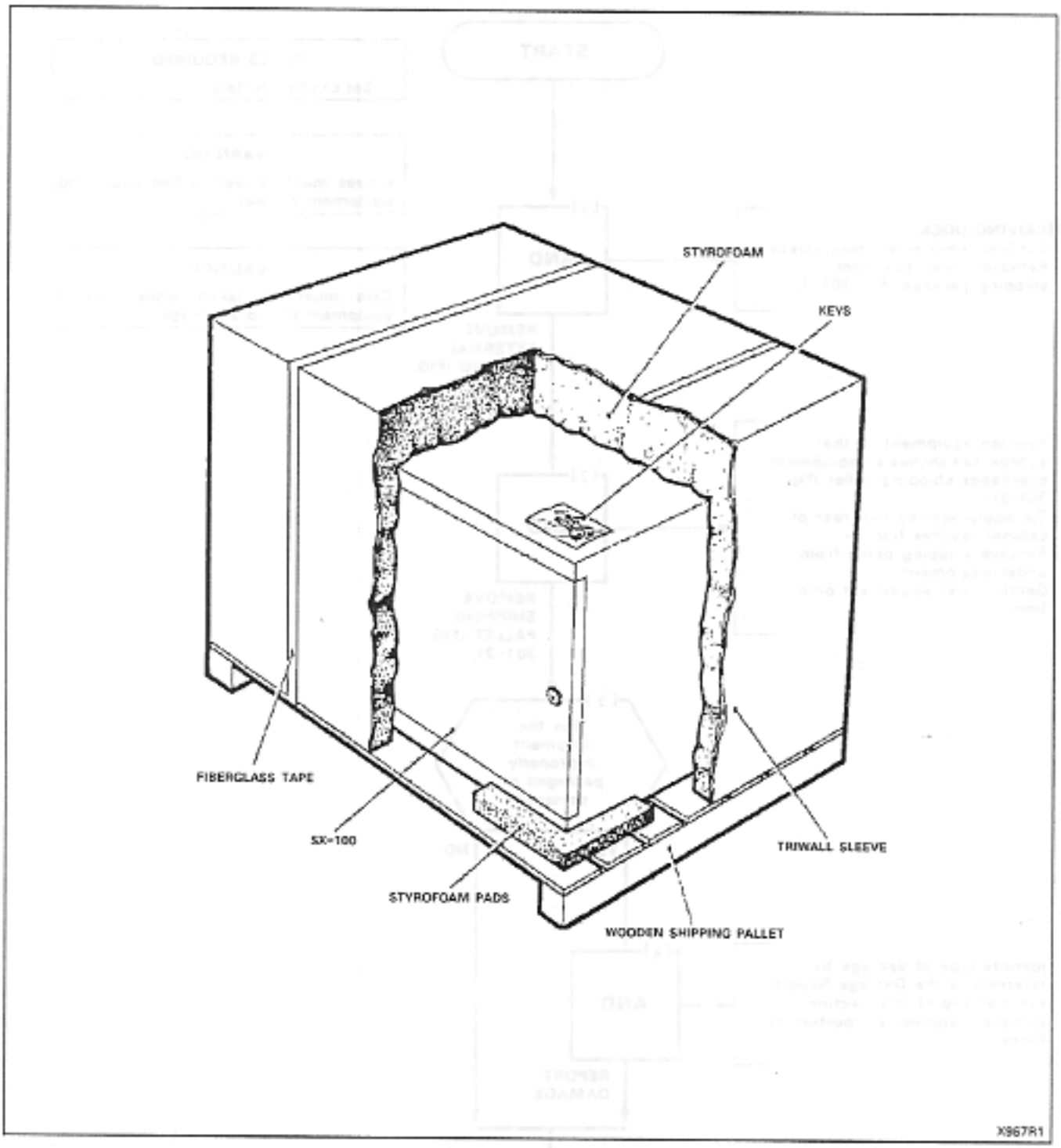

Fig. 301-1 Remove External Packing

UNPACK SX-100 EQUIPMENT
MAP200-301
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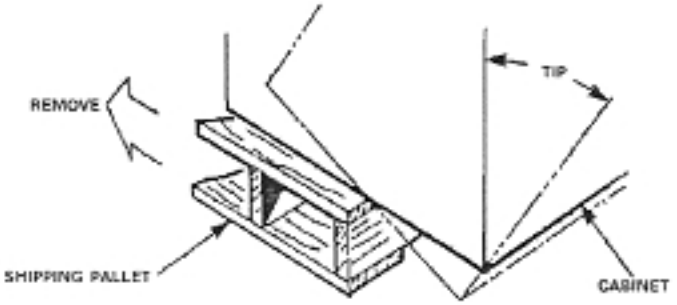

X264

Fig. 301-2 Remove Shipping Pallet

UNPACK CONSOLES
MAP200- 302
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Sheet 1 of 4

START

TOOLS REQUIRED
1 Screwdriver 0.25 inch blade

AT CONSOLE LOCATION

(1A) Remove fiberglass tape from top of packing case
(1B) Open packing case and remove foam sheet
(1C) Remove cardboard insert
(1D) Remove console accessory bag from insert
(1E) Remove console from packing case
(1F) Remove polyethylene sheet from console
(1G) Place all packing material in packing case for use in reshipment

[1] AND

UNPACK CONSOLES

(2A) Remove the two pieces of the bracket assembly and the five securing screws (Fig. 302-1) from the accessory bag
(2B) Determine to which side of the console the cradle assembly is to be mounted, and assemble the two brackets accordingly. Fig. 302-1 shows a right-mounted assembly
(2C) Secure the two brackets together with two 8-32 hex screws and felt washers using the wrench supplied
(2D) Place console face down on desk top
(2E) Position bracket as shown in Fig. 302-1 (or the dotted outline if it is a left-mount assembly)
(2F) Attach bracket to base of console with three 6-32 screws

[2] AND

INSTALL BRACKET ASSEMBLY (FIG. 302-2)

Go to (3)

UNPACK CONSOLES
MAP200- 302
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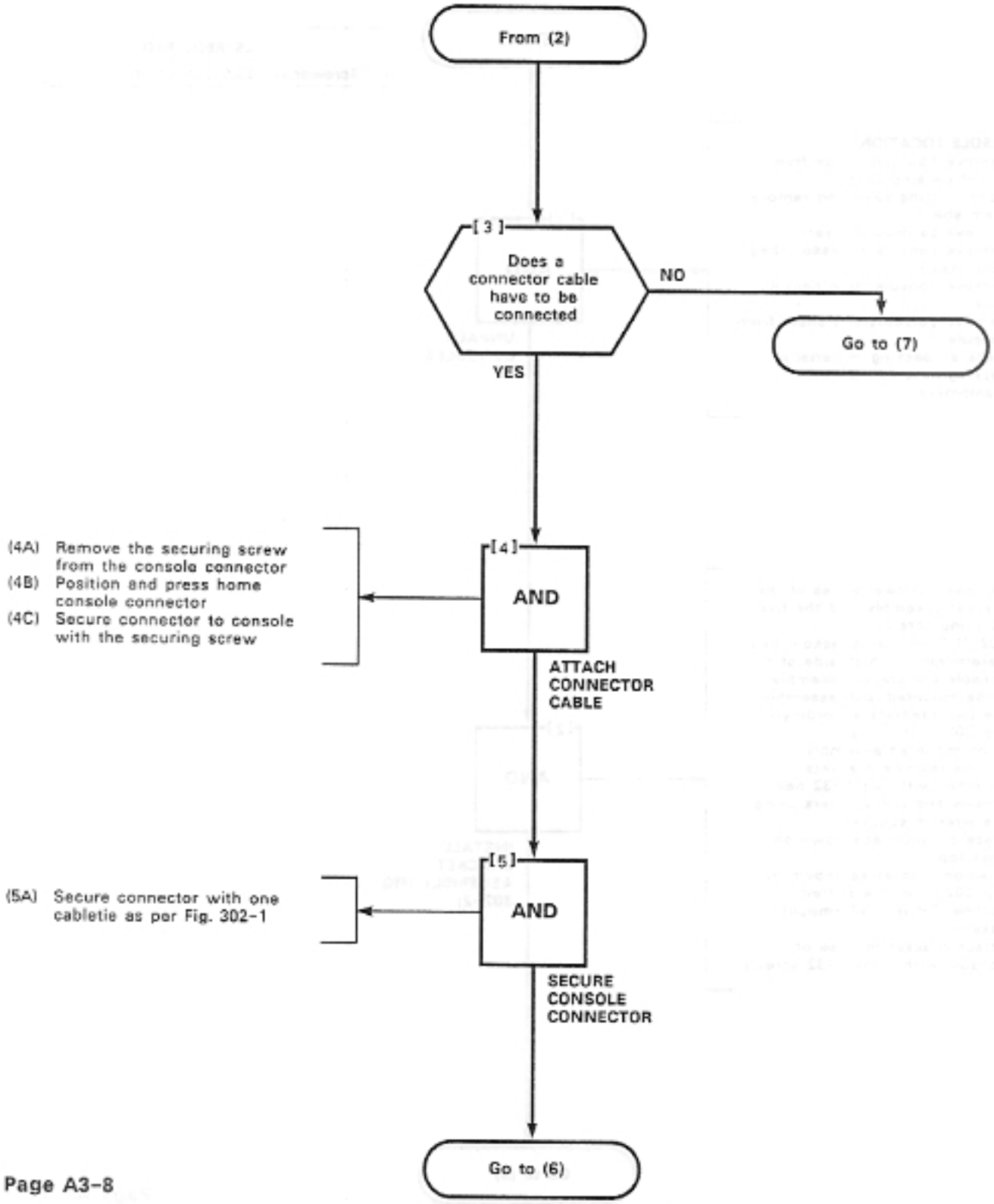

UNPACK CONSOLES
MAP200-302
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From (5)

[6] AND

(6A) Set Power Fail Transfer (PFT) switch to NORMAL

SET PFT SWITCH

[7] AND

(7A) Place console in correct position

POSITION CONSOLE

[8] AND

(8A) Remove handset from accessory bag
(8B) Place handset plug into console jack
(8C) Place handset on cradle hook

PLUG IN HANDSET

Go to (9)

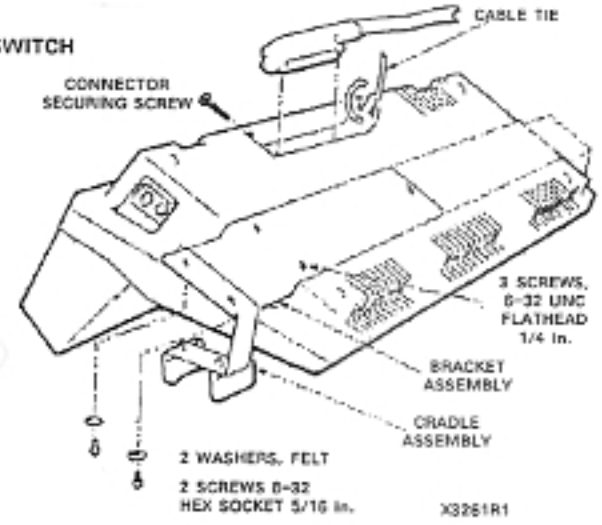

Fig. 302-1 Install Bracket Assembly

UNPACK CONSOLES
MAP200- 302
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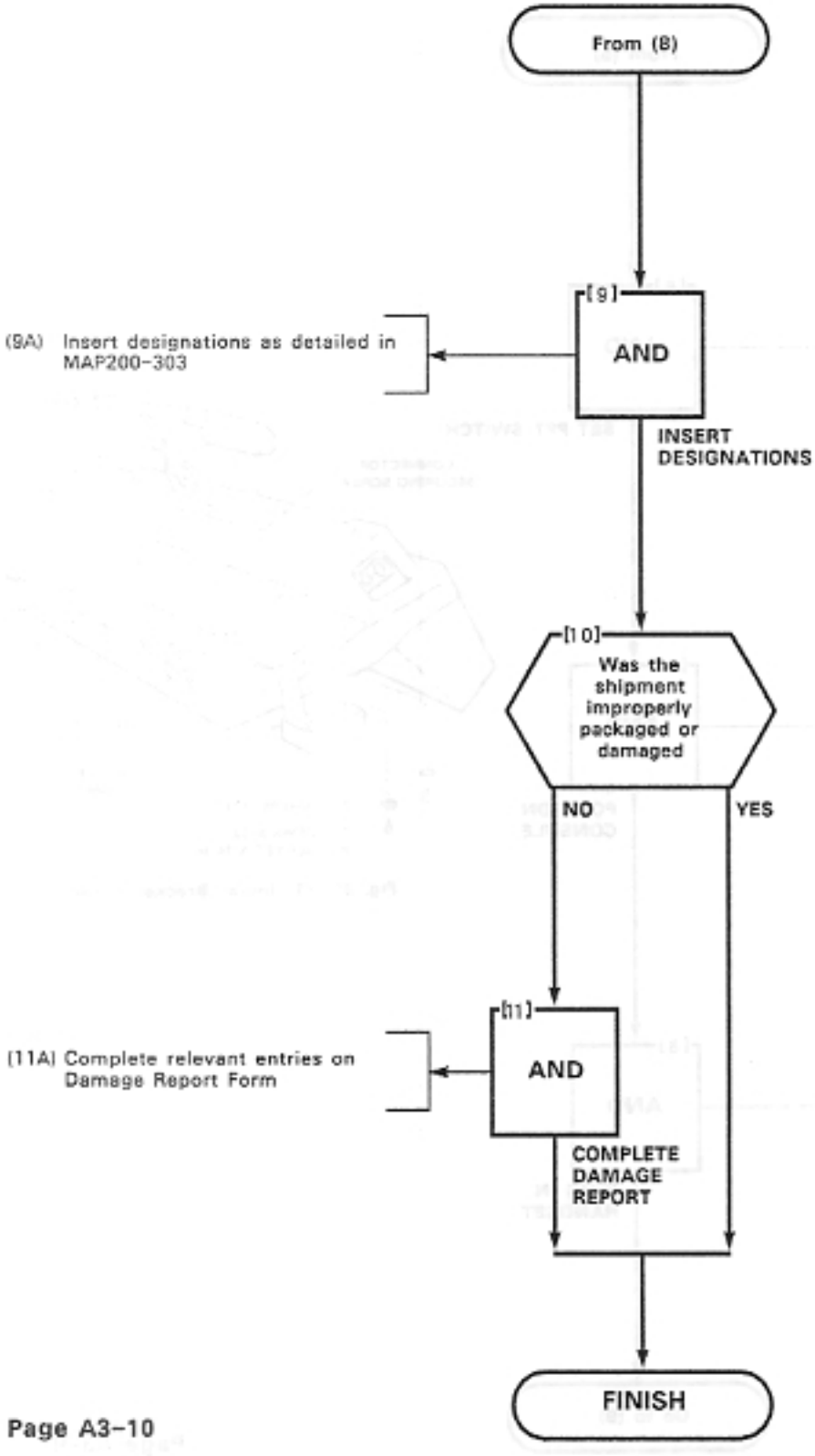

INSTALL CONSOLE FACEPLATE DESIGNATIONS
MAP200-303
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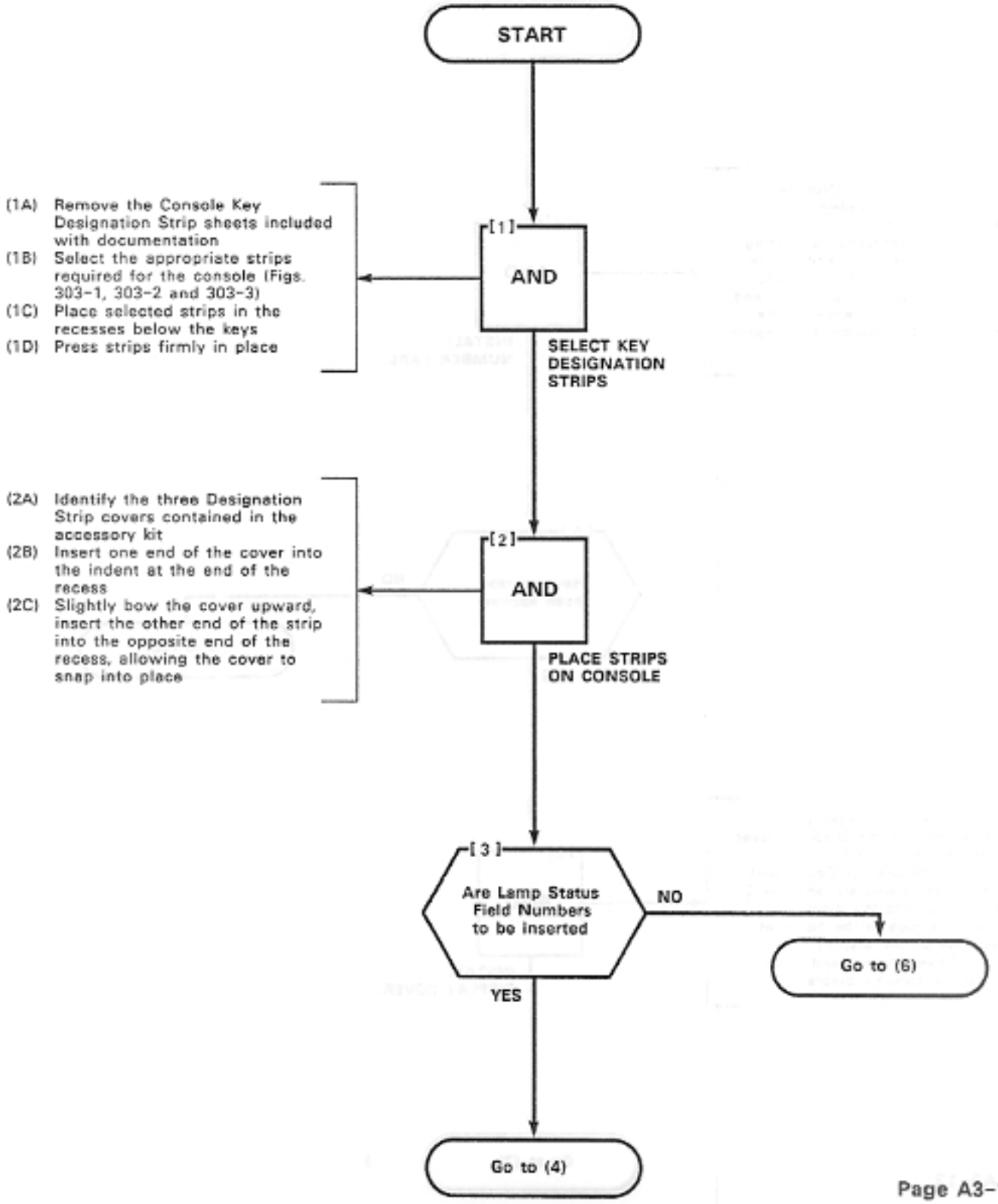

INSTALL CONSOLE FACEPLATE DESIGNATIONS
MAP200- 303
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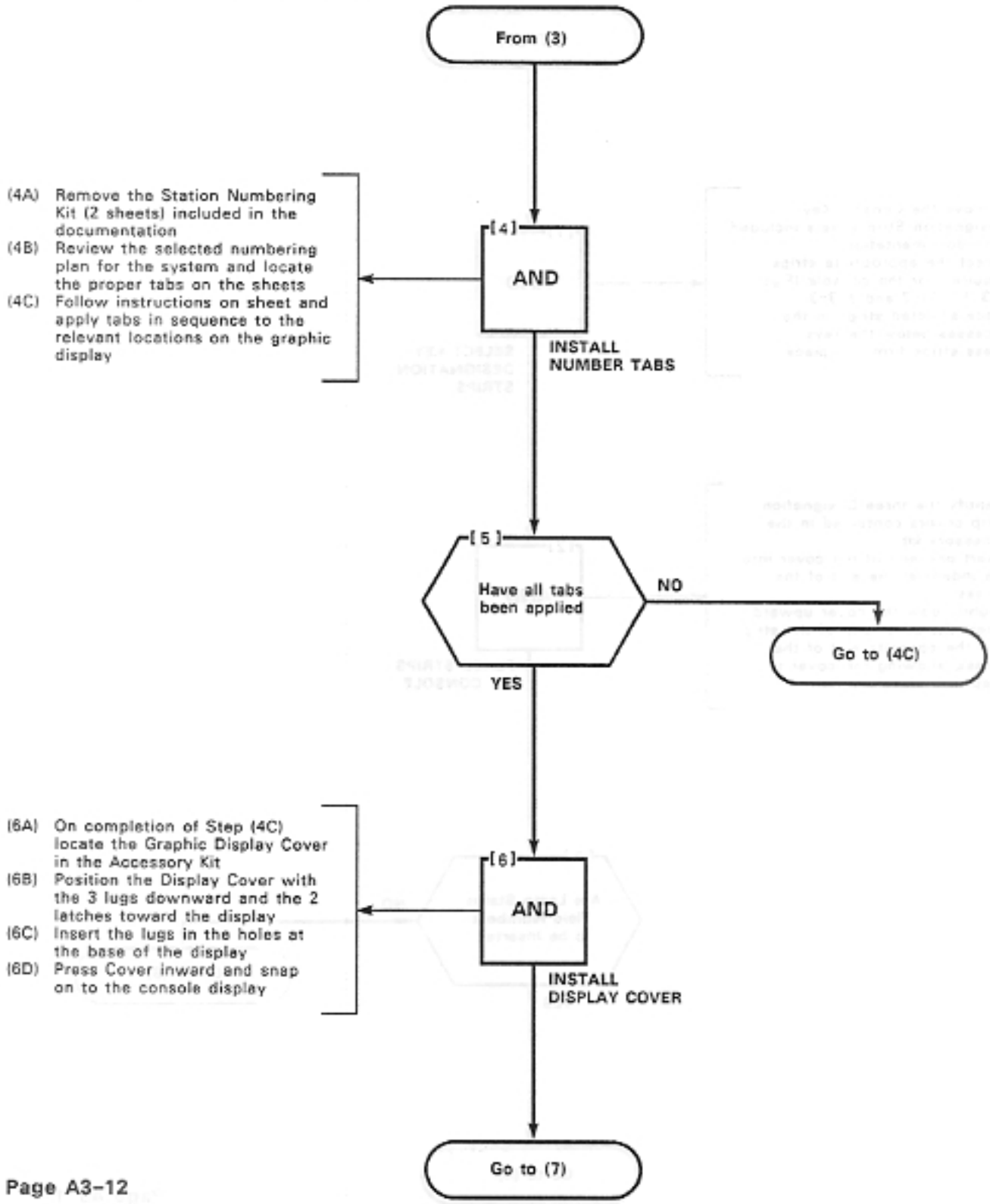

INSTALL CONSOLE FACEPLATE DESIGNATIONS
MAP200-303
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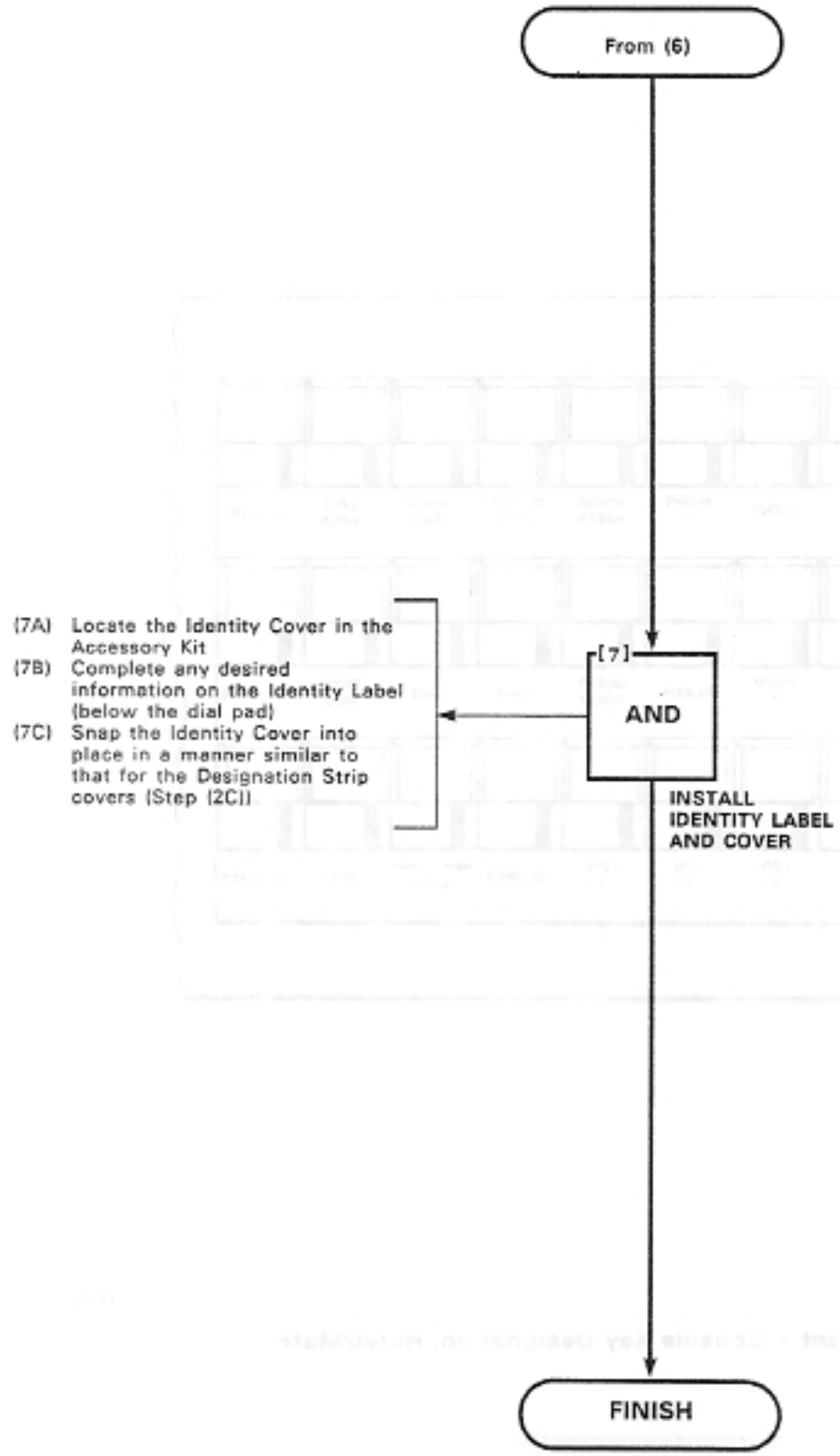

INSTALL CONSOLE FACEPLATE DESIGNATIONS
MAP200- 303
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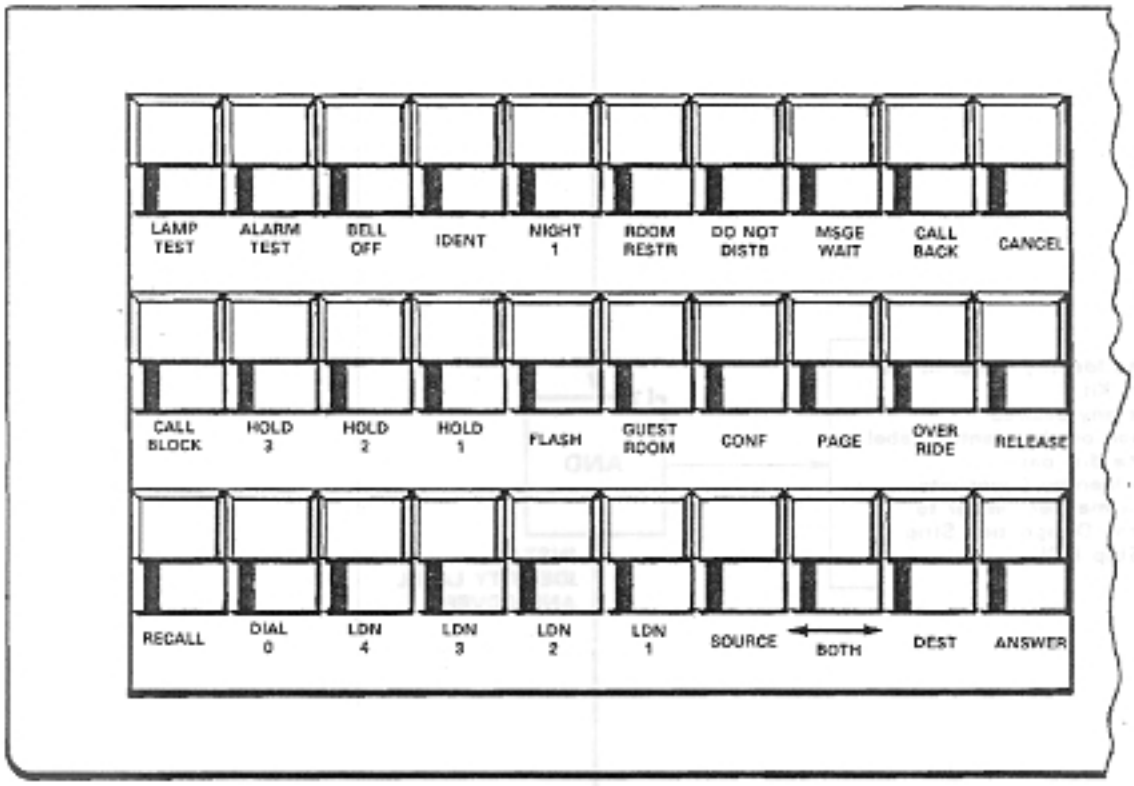

X3103

Fig. 303-1 Attendant - Console Key Designation, Hotel/Motel

INSTALL CONSOLE FACEPLATE DESIGNATIONS
MAP200-303
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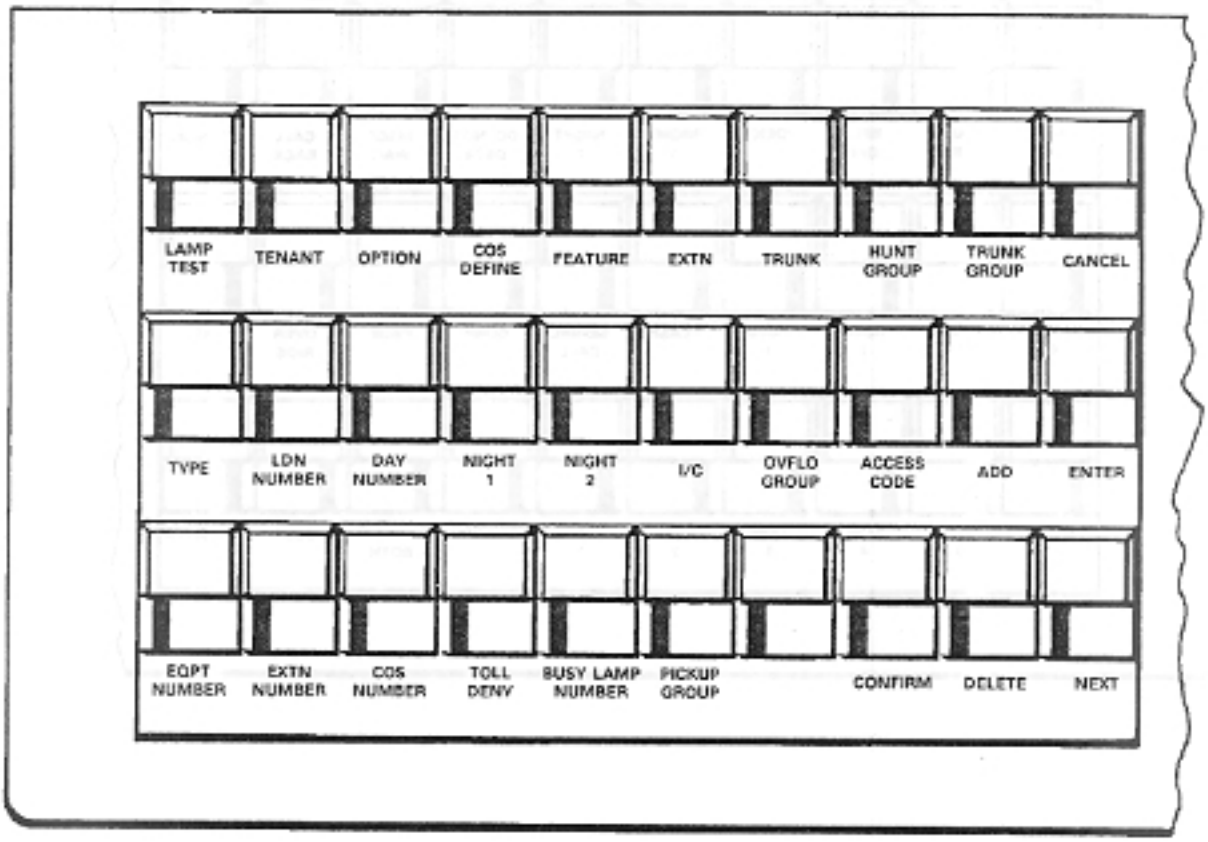
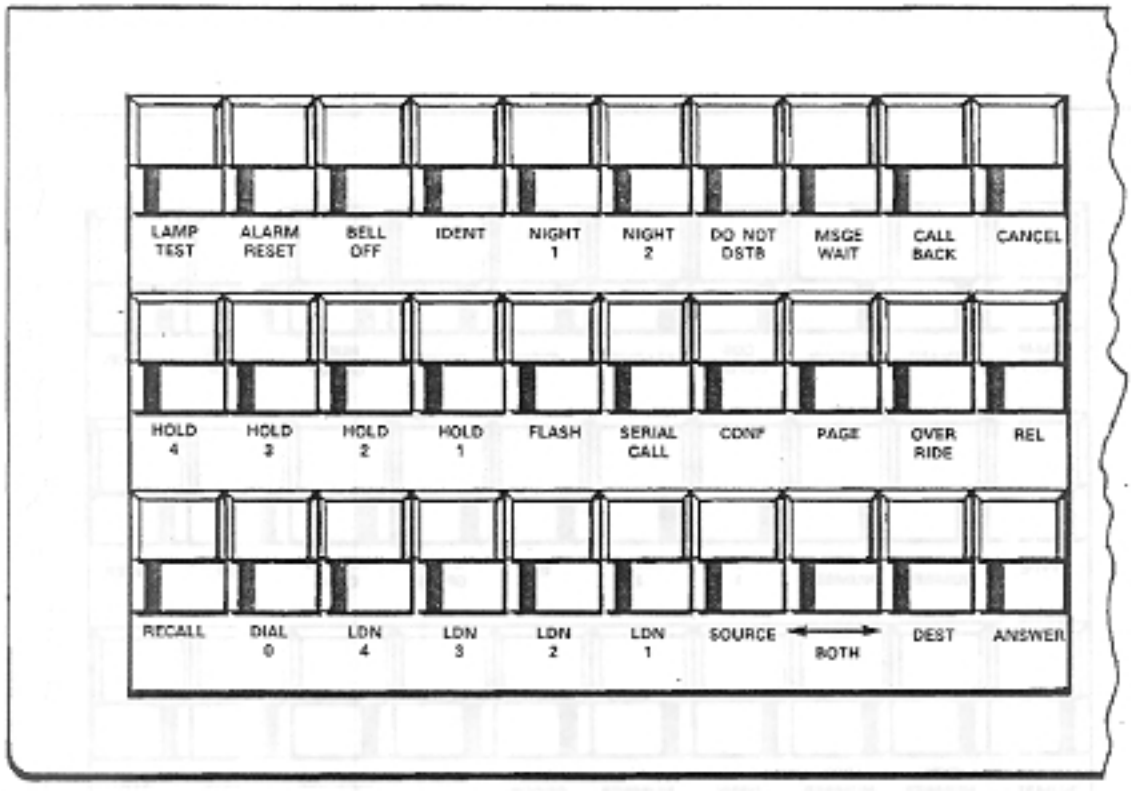


X3102

Fig. 303-2 Standard Programming Console



XS257

Fig. 303-3 Commercial Key Designations

INSPECT EQUIPMENT
MAP200-304
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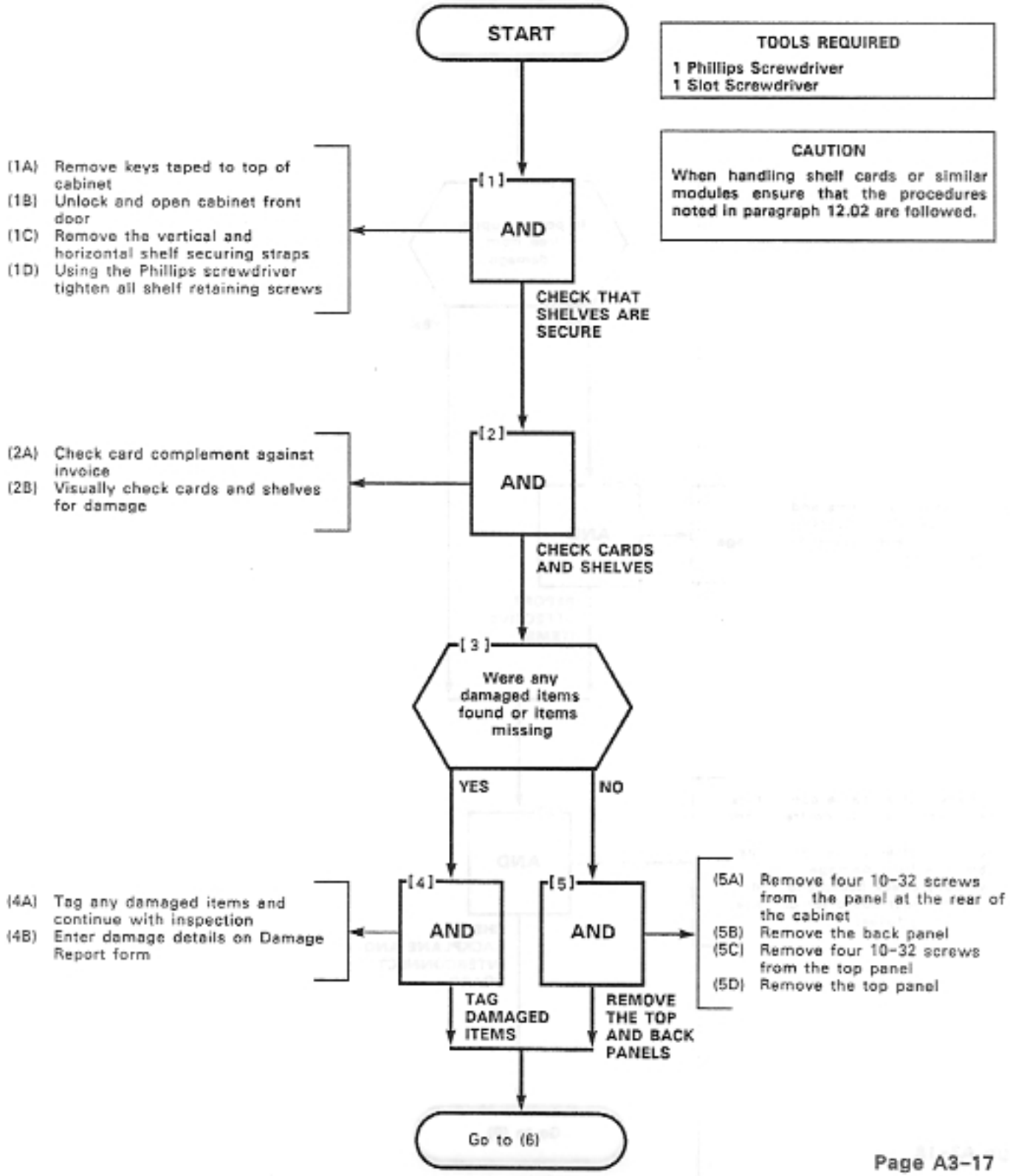

INSPECT EQUIPMENT
MAP200- 304
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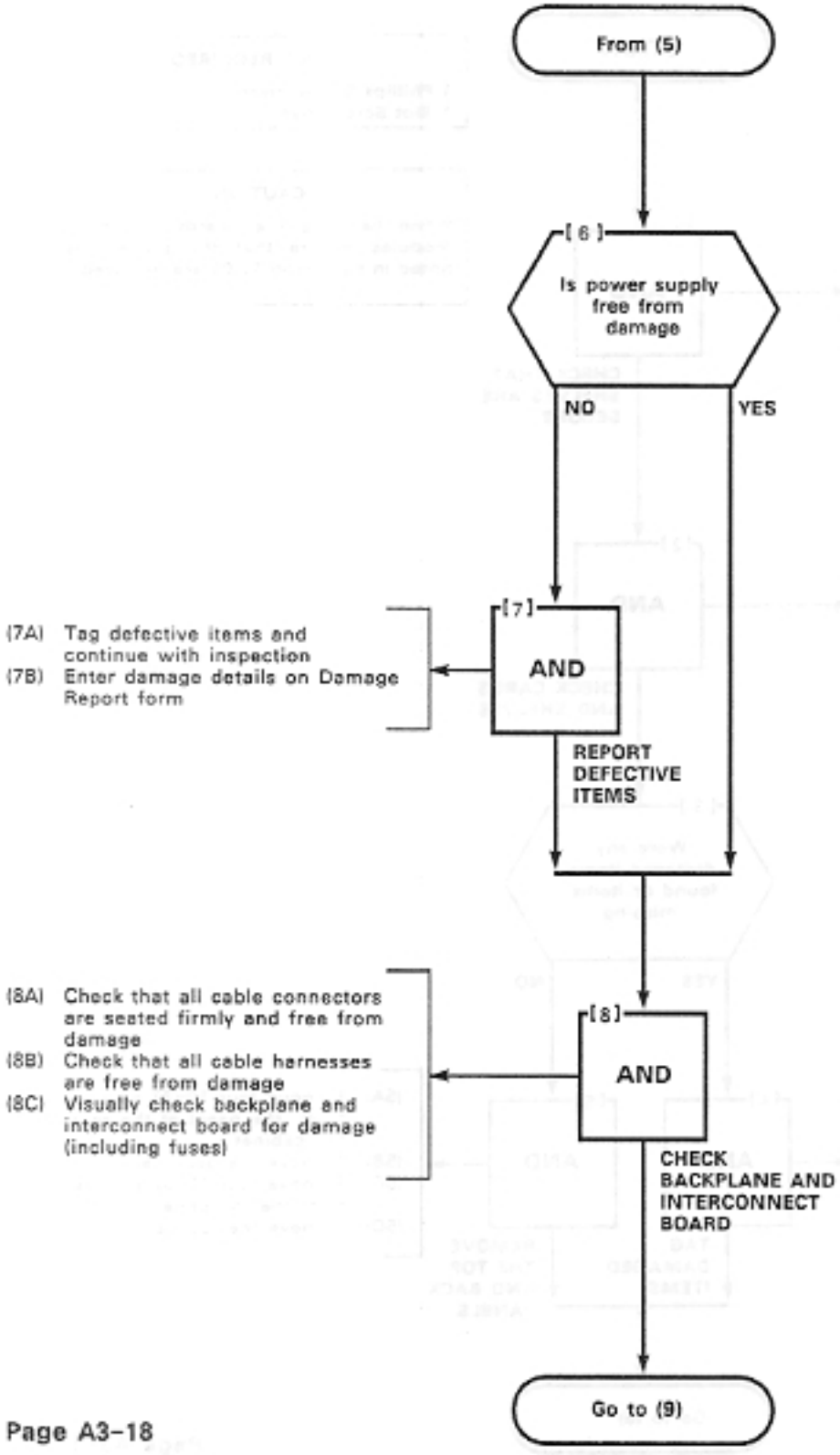

INSPECT EQUIPMENT
MAP200-304
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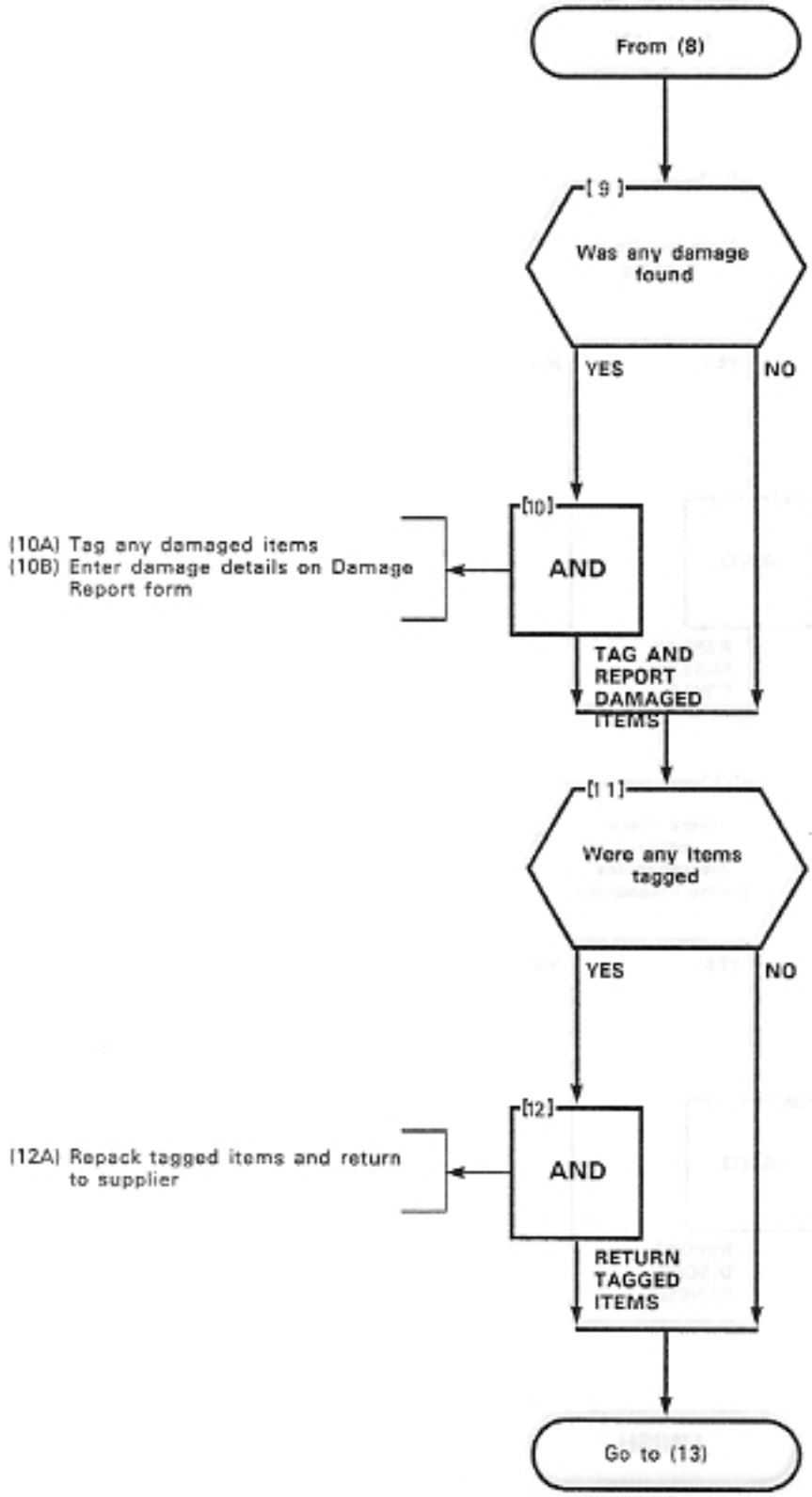

INSPECT EQUIPMENT
MAP200- 304
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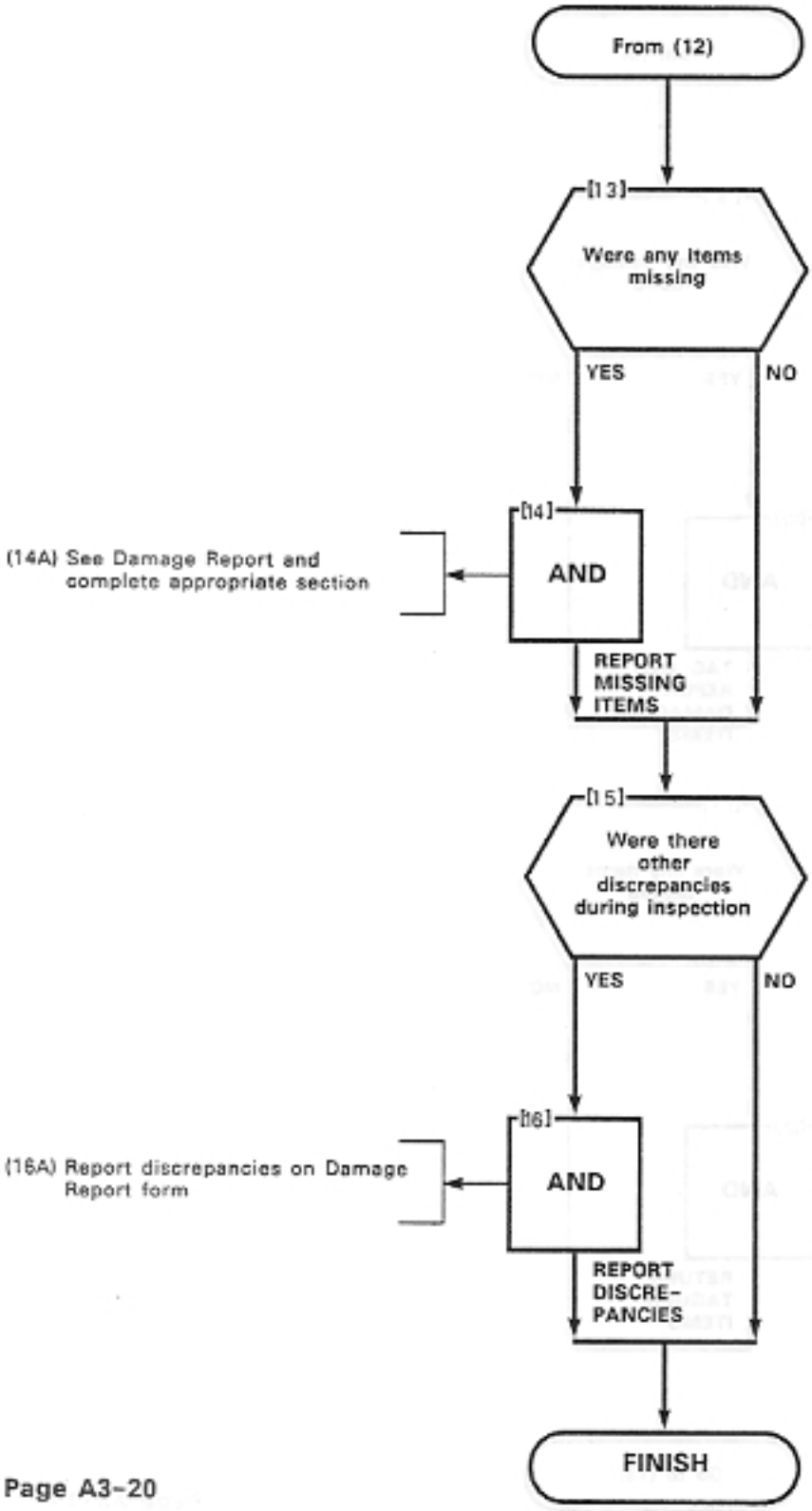

INSTALL EQUIPMENT
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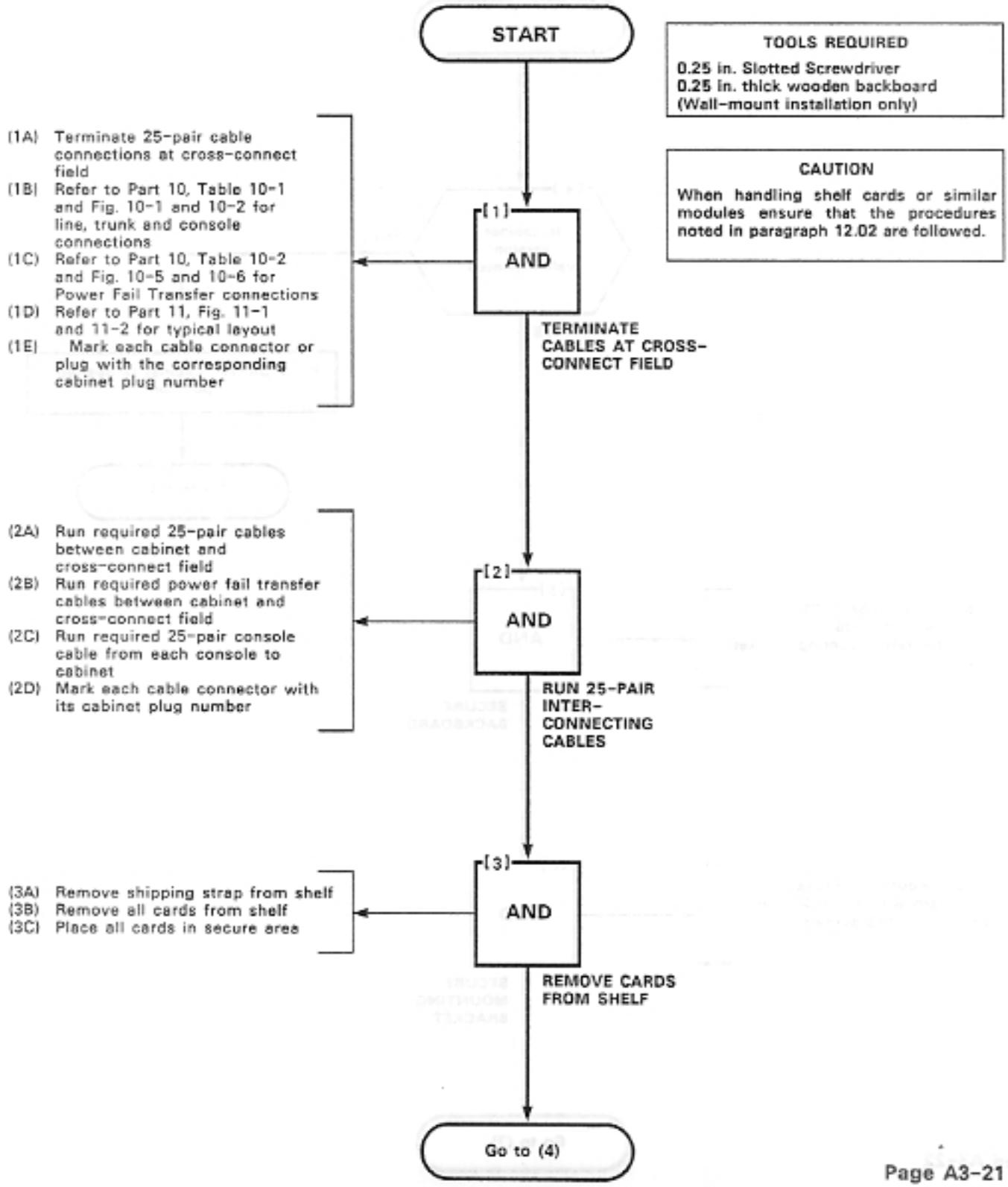

INSTALL EQUIPMENT
MAP200- 305
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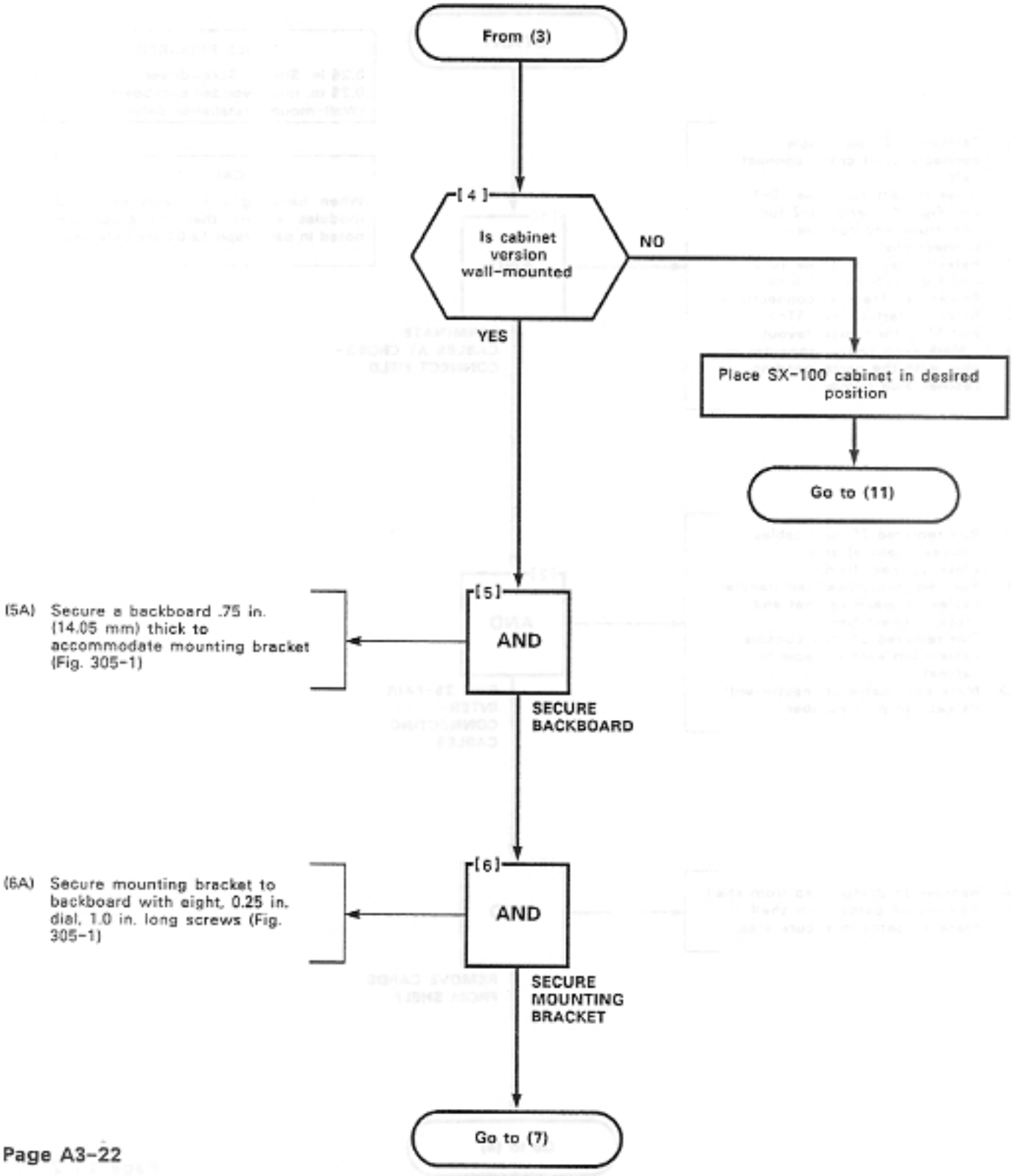
Sheet 2 of 8



INSTALL EQUIPMENT
MAP200-305
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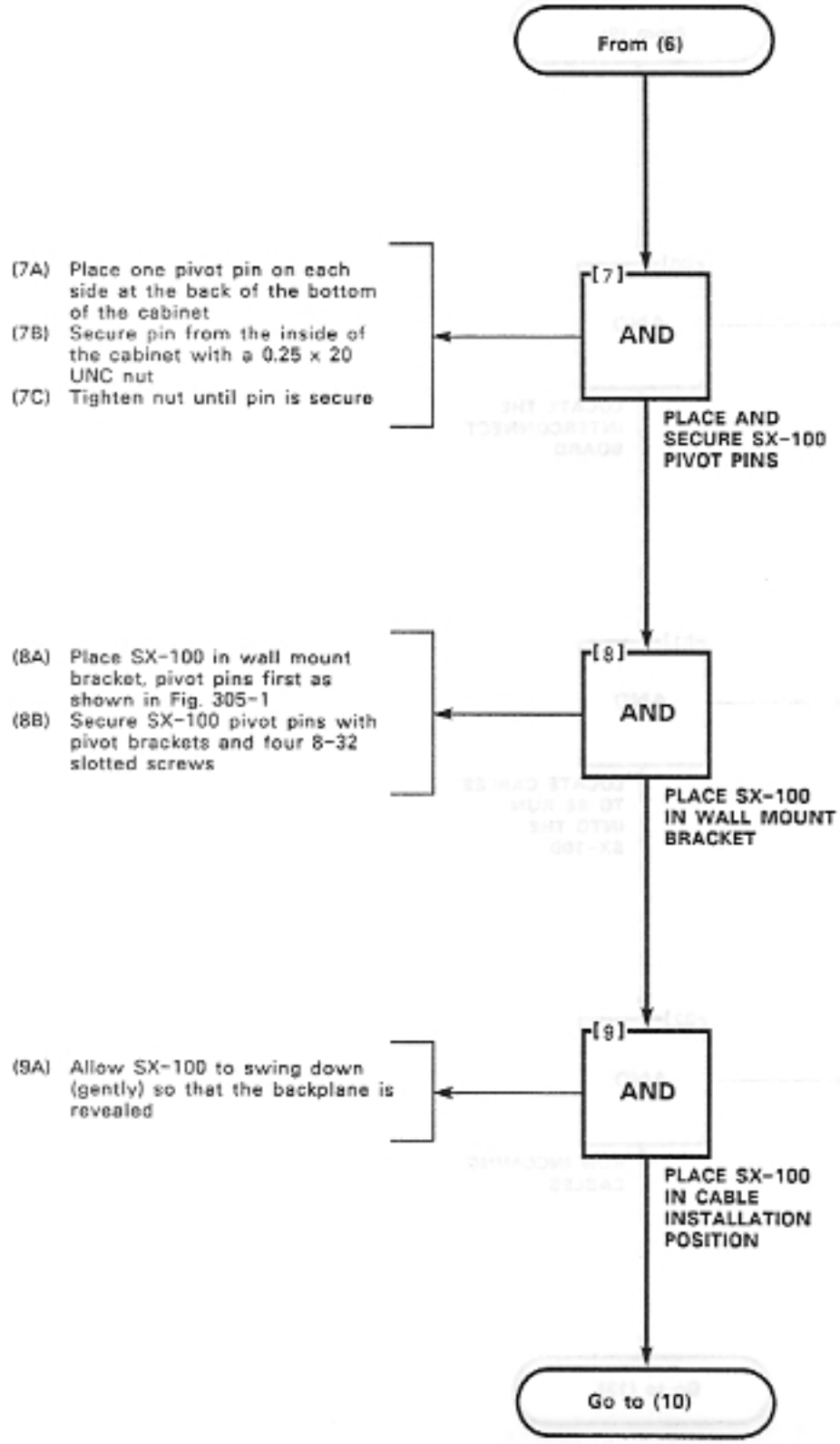

INSTALL EQUIPMENT
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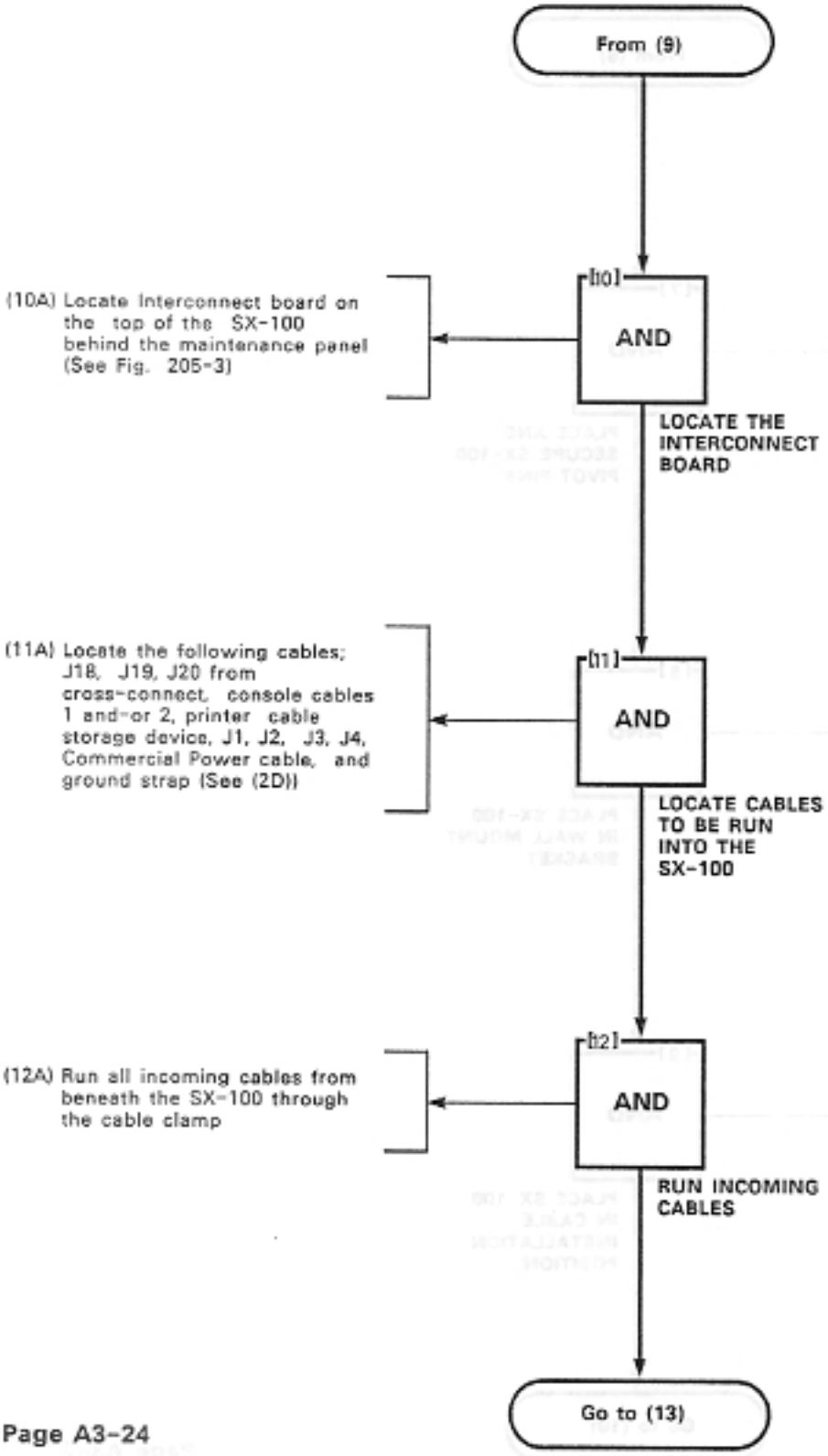

INSTALL EQUIPMENT
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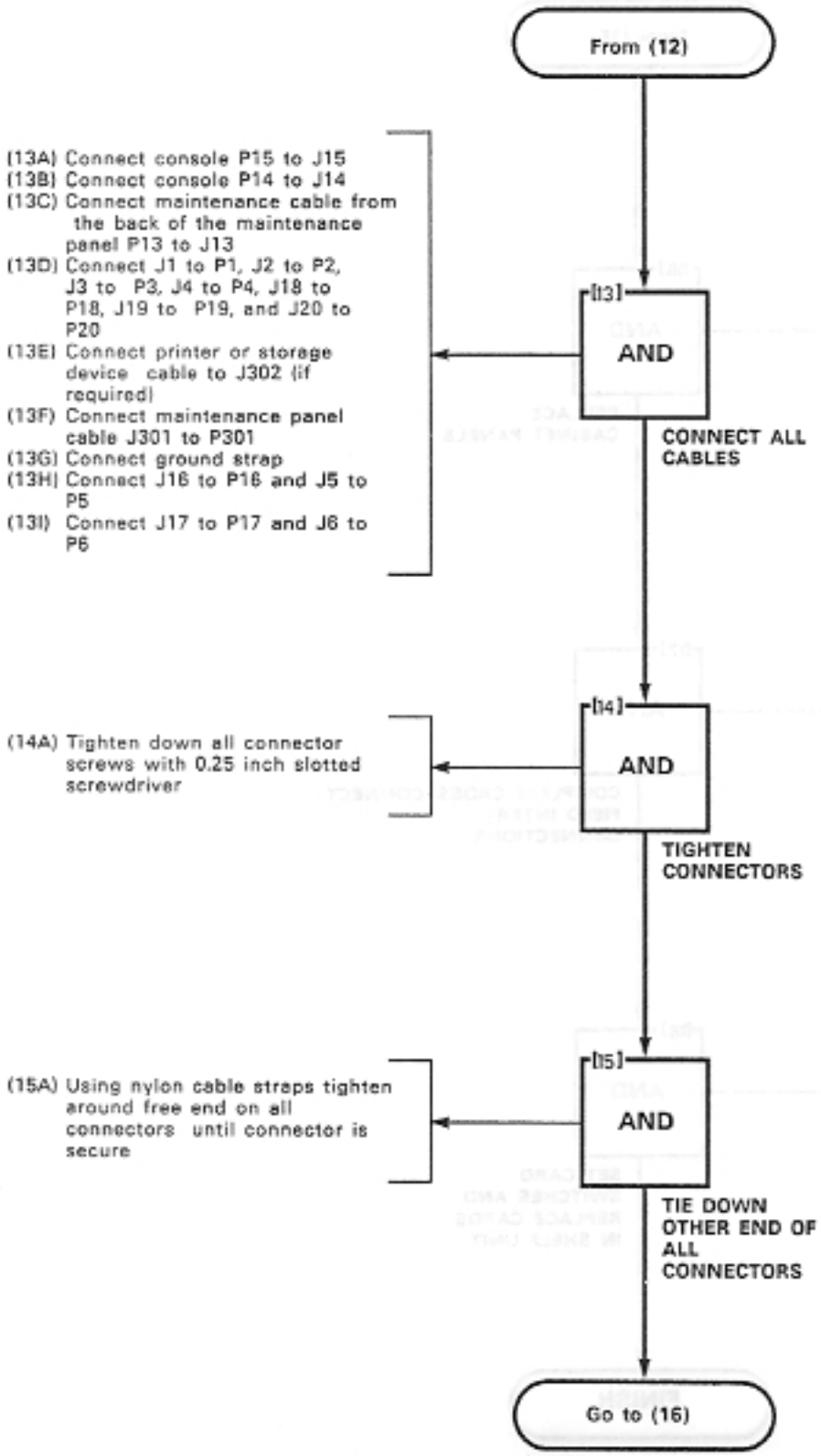

INSTALL EQUIPMENT
MAP200- 305
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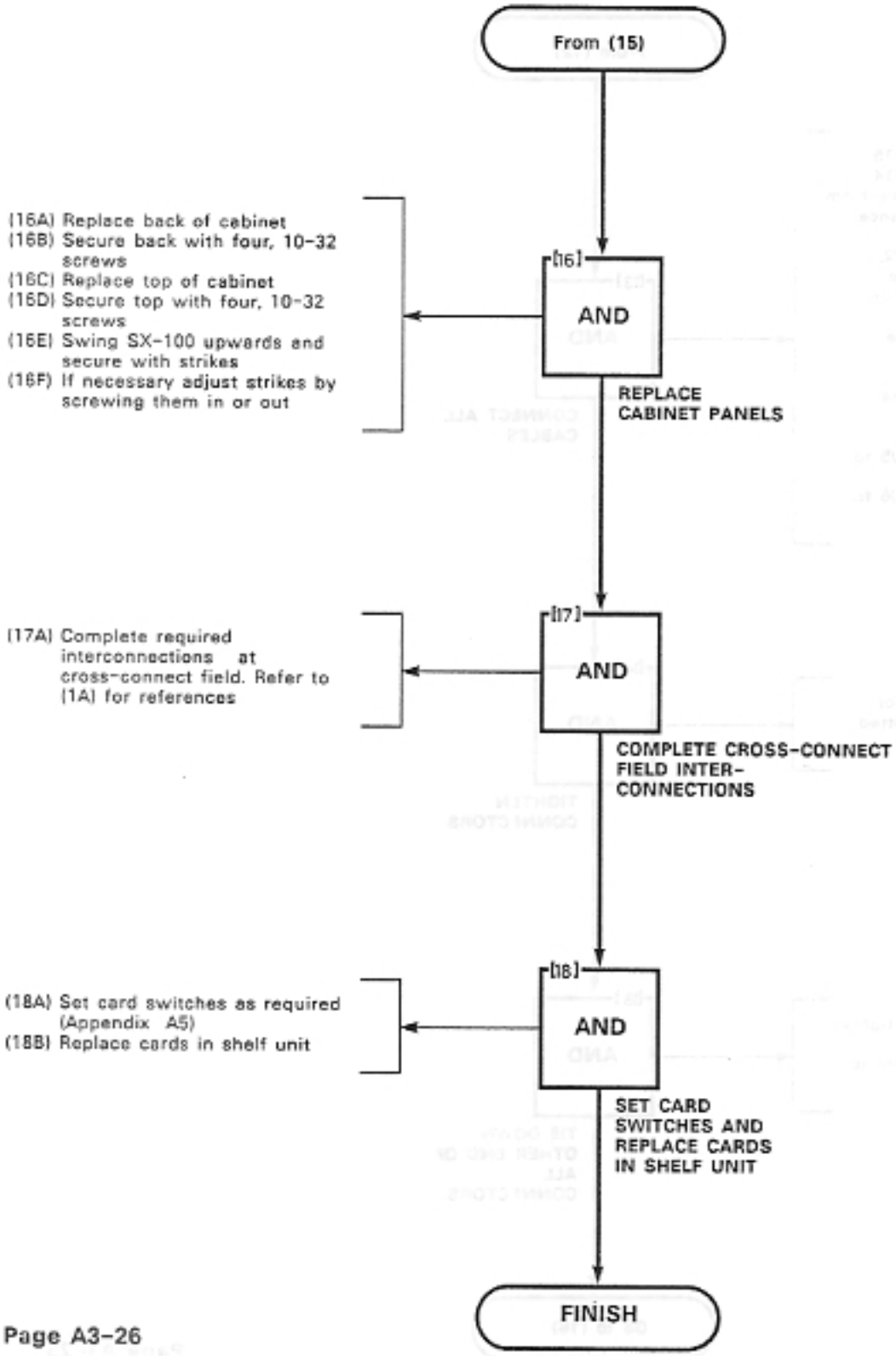

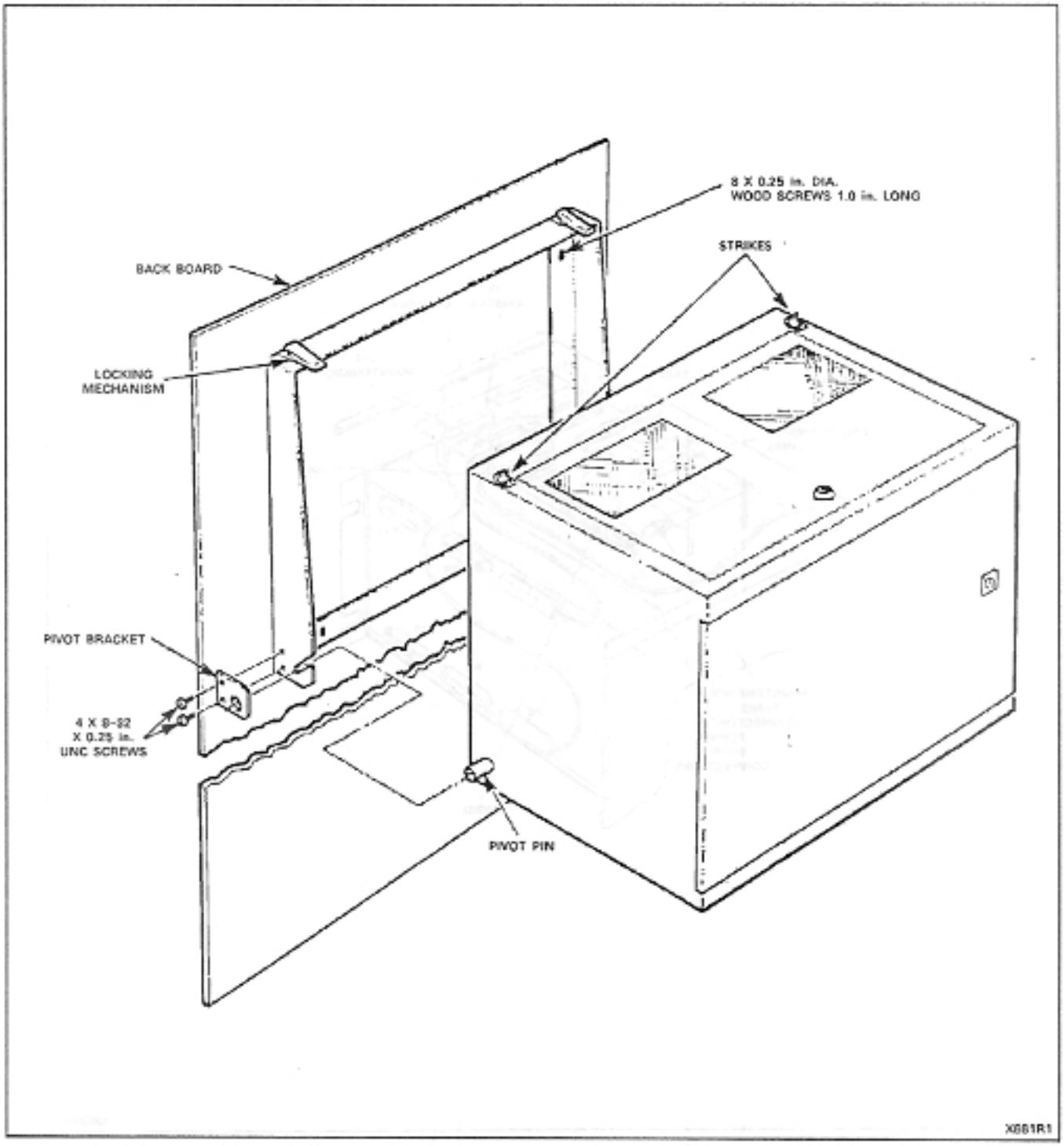

Fig. 305-1 Wall Mounting

INSTALL EQUIPMENT
MAP200- 305
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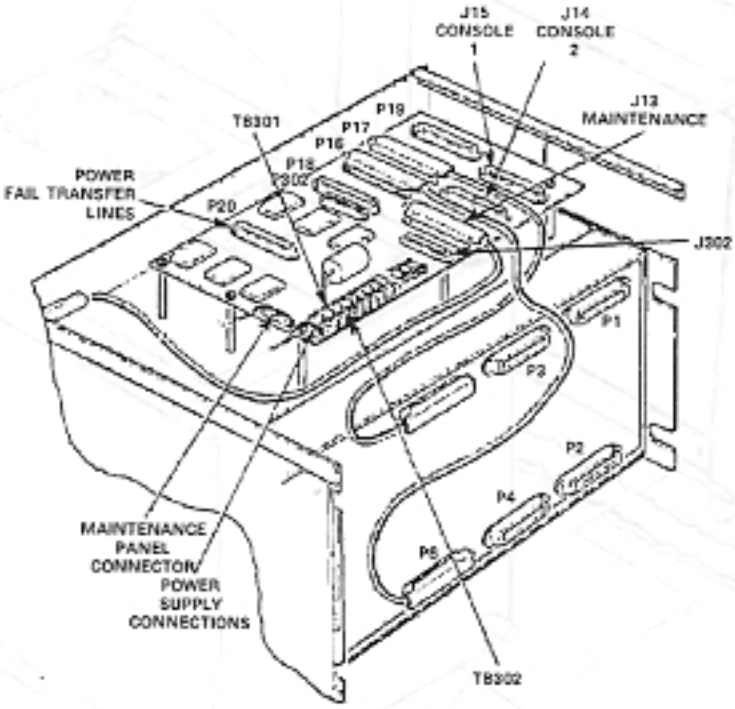

Fig. 305-2 Cable Connections

SET CARD SWITCHES
MAP200-306
Issue 1, September, 1983
Sheet 1 of 1

The setting of switches, to result in the required mode of operation on the Trunk Cards is detailed in the MAP's contained in Appendix A-5. The installer should ensure that these cards are properly switched for the correct mode of operation prior to performing "Power-Up" as detailed in MAP200-307.

POWER-UP SYSTEM
MAP200-307
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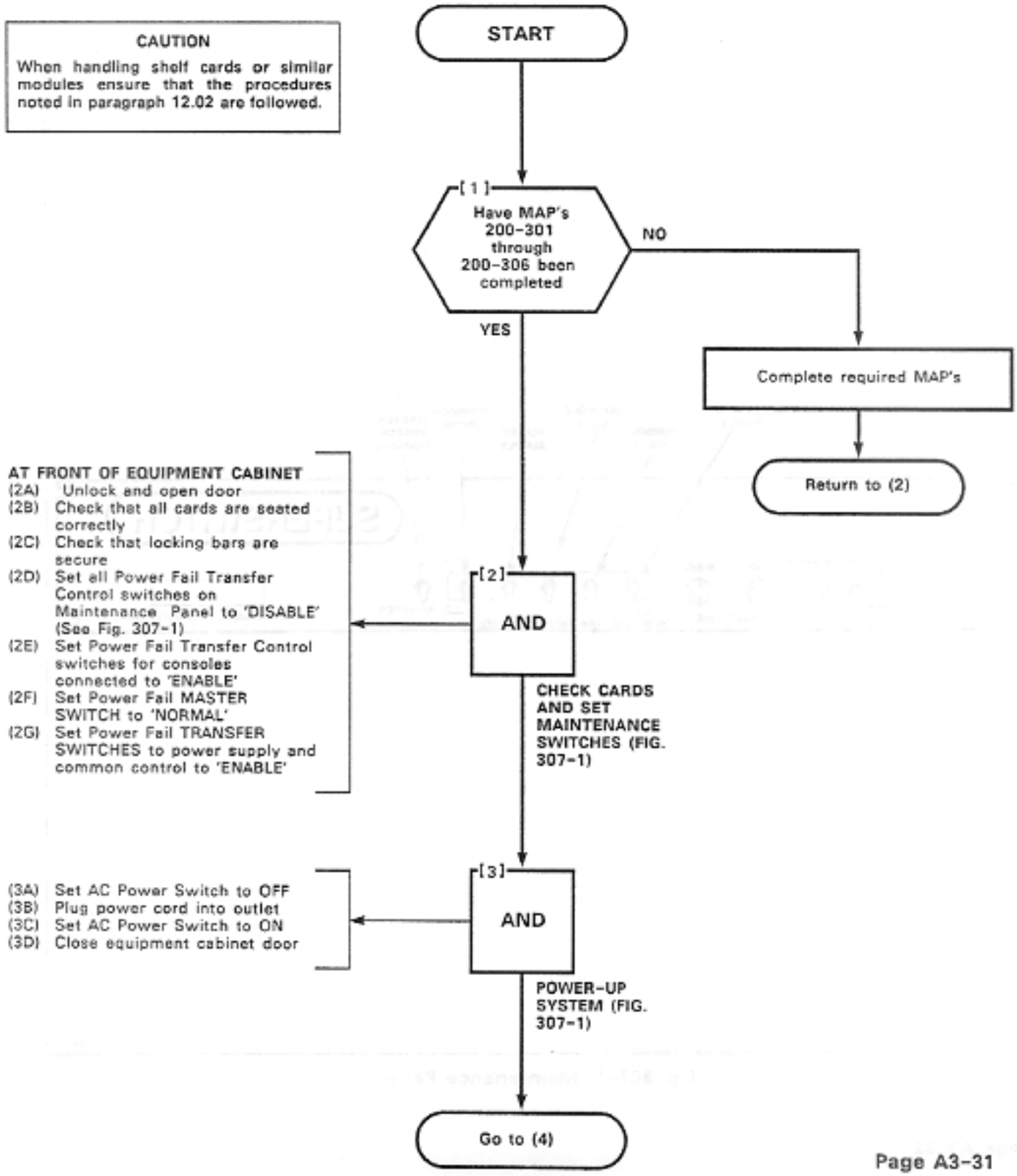
Sheet 1 of 3

CAUTION

When handling shelf cards or similar modules ensure that the procedures noted in paragraph 12.02 are followed.



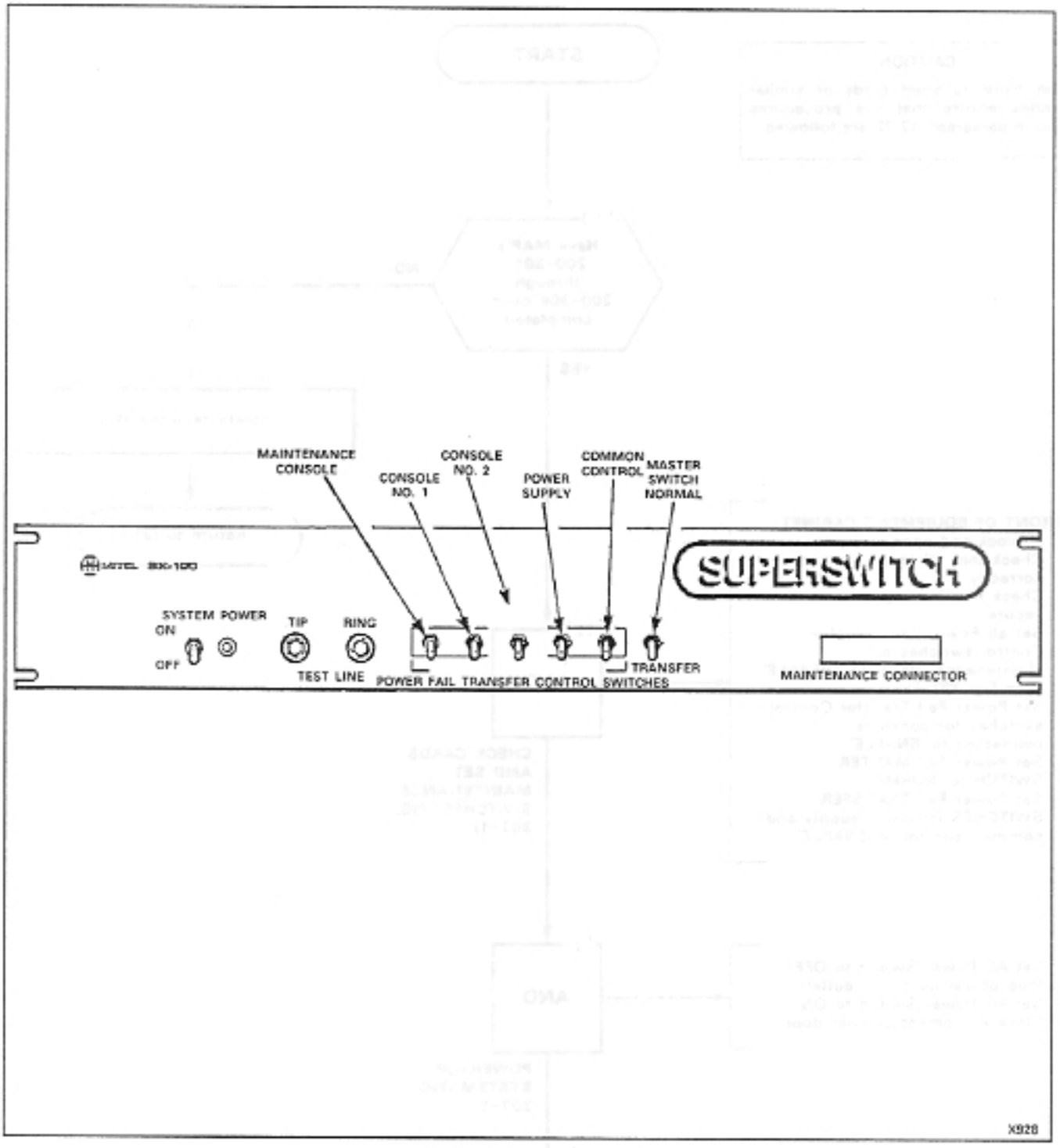


Fig. 307-1 Maintenance Panel

POWER-UP SYSTEM
MAP200-307
Issue 1, September, 1983
Sheet 3 of 3

NOTE

To program the system go to Section MITL9105/9110-090-210-NA.

NOTE

Occasionally, when circuit cards are plugged into the ACD system, the logic circuits on the card may not reset completely. In order to guarantee complete reset of all card logic, a slot initialization procedure must be performed. This procedure allows the service personnel to insert a card into a shelf and initialize the card slot. To initialize the card slot dial 555 + 5 + nn, where nn is the 2-digit card slot number (01-17 shelf 1, 31-42 shelf 2). Since inserting a card may cause diagnostic errors, this procedure is normally followed by dialing 555 + 1 to clear all system errors.

From (3)

[4] Wait 10 s. Is Power LED lit

NO → Set AC Power Switch to OFF. Go to MITL9105-9110-090-350-NA

YES

[5] AND

(5A) Place equipment cabinet in its final position if required

POSITION CABINET

[6] Is Console clock showing 00:00

NO → Go to MITL9105-9110-090-350-NA

YES

FINISH

AND

APPENDIX 4

SX-200 INSTALLATION PROCEDURES

1. GENERAL

A4.01 The following Table A4-1 details the procedures to be performed to complete the installation of an SX-200 ACD System.

A4.02 The SX-100 and SX-200 may utilize the same consoles. For this reason refer to MAP's 200-302, 200-303 and 200-304 of Appendix 3 when dealing with the console.

TABLE A4-1
SX-200 INSTALLATION

Step	Procedure	Reference
1	Unpack Equipment Cabinet	MAP200-401
2	Unpack Consoles	MAP200-302
3	Install Console Faceplate Designations	MAP200-303
4	Inspect Equipment	MAP200-404
5	Connect Cables	MAP200-405
6	Set Card Switches (Appendix 5)	MAP200-406
7	Power-Up System (See Note)	MAP200-407
8	Program System	Section MITL9105/9110-090-210-NA
9	Perform System Tests	Section MITL9105/9110-090-215-NA
10	Perform Extension Tests	Section MITL9105/9110-090-320-NA

Note: Appendix 6 lists miscellaneous installation requirements which may be required prior to power-up of system. This Appendix should be reviewed for applicability.

UNPACK EQUIPMENT CABINET
MAP200-401
Issue 1, September 1983
Sheet 1 of 4

START

TOOLS REQUIRED

1. Set of strap cutters

WARNING

Gloves must be worn when unpacking equipment cabinet.

CAUTION

Care must be taken when moving cabinet to avoid damage.

[1] AND

(1A) Cut and remove retaining straps
(1B) Open triwall outer sleeve
(1C) Remove inner triwall sleeve

REMOVE EXTERNAL PACKING (FIG. 401-1)

[2] AND

(2A) Position equipment so that approx. ten inches of cabinet overhangs shipping pallet (Fig. 401-2)
(2B) Tip equipment so that rear of cabinet touches floor
(2C) Remove shipping pallet from under cabinet
(2D) Gently lower cabinet onto floor

REMOVE SHIPPING PALLET (FIG. 401-2)

[3] AND

(3A) Push cabinet to its required location
(3B) Position cabinet as shown in Fig. 401-3
(3C) Remove plastic sheet from cabinet

POSITION CABINET (FIG. 401-3)

Go to (4)

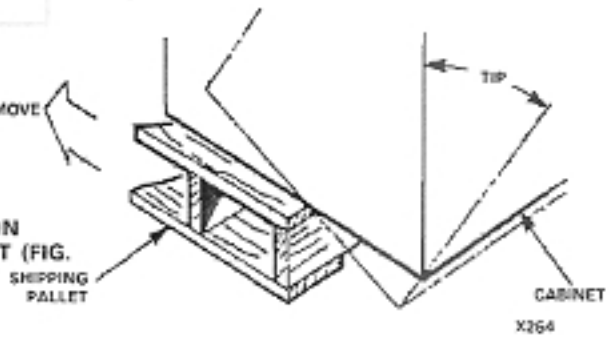


Fig. 401-2 Remove Shipping Pallet

UNPACK EQUIPMENT CABINET
MAP200- 401
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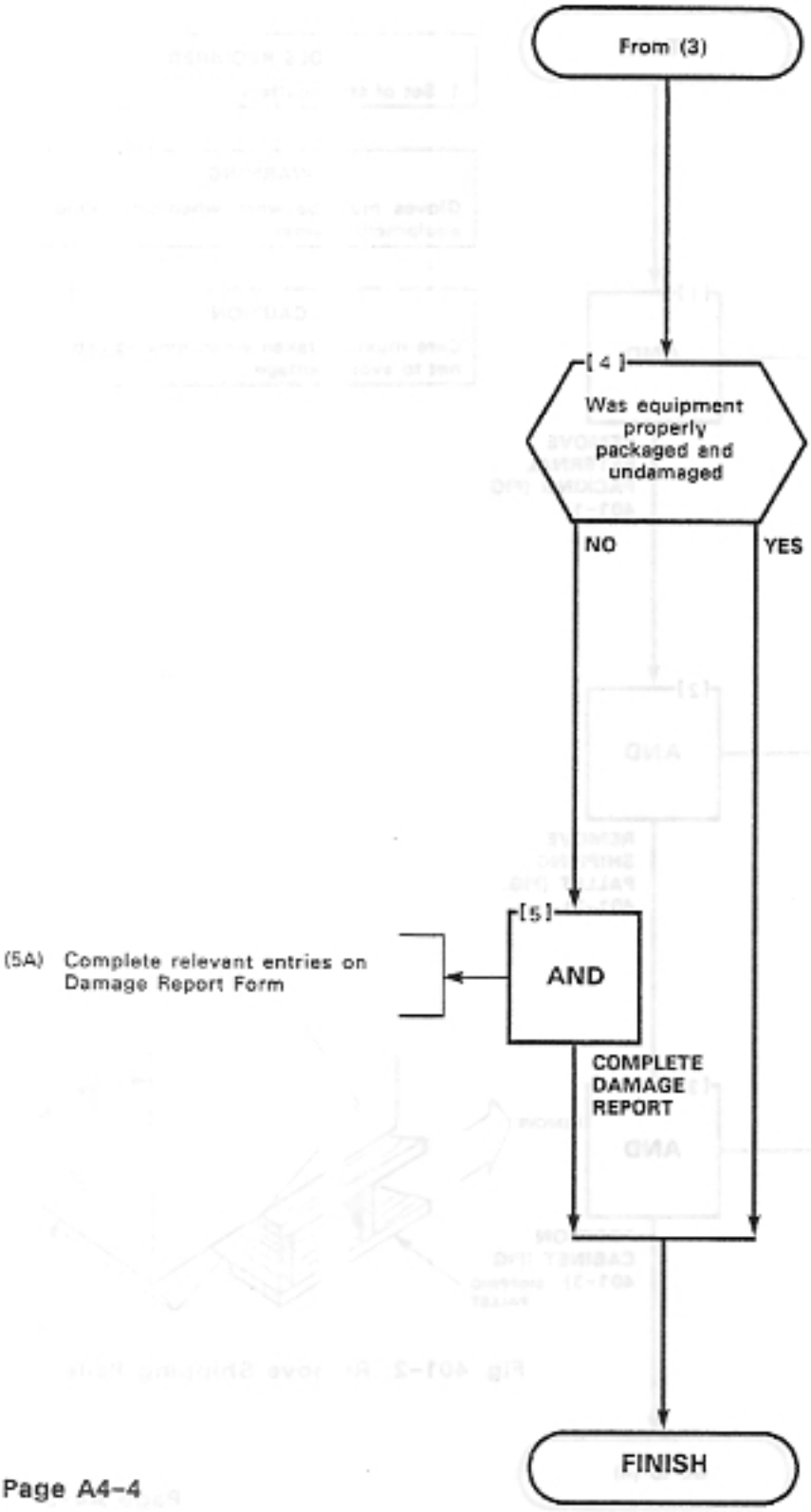

UNPACK EQUIPMENT CABINET
MAP200-401
Issue 1, September 1983
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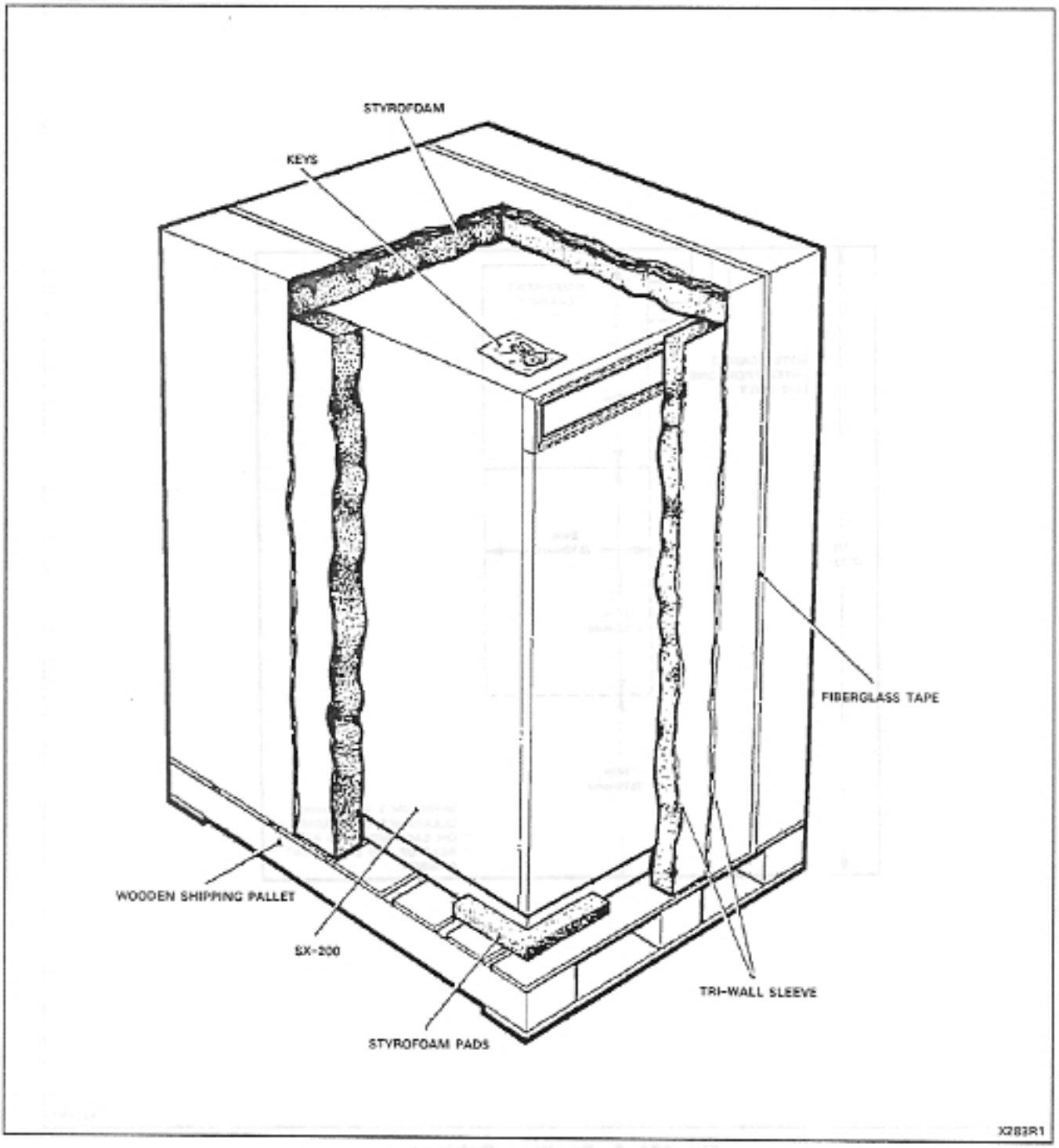

Fig. 401-1 Remove External Packing

UNPACK EQUIPMENT CABINET
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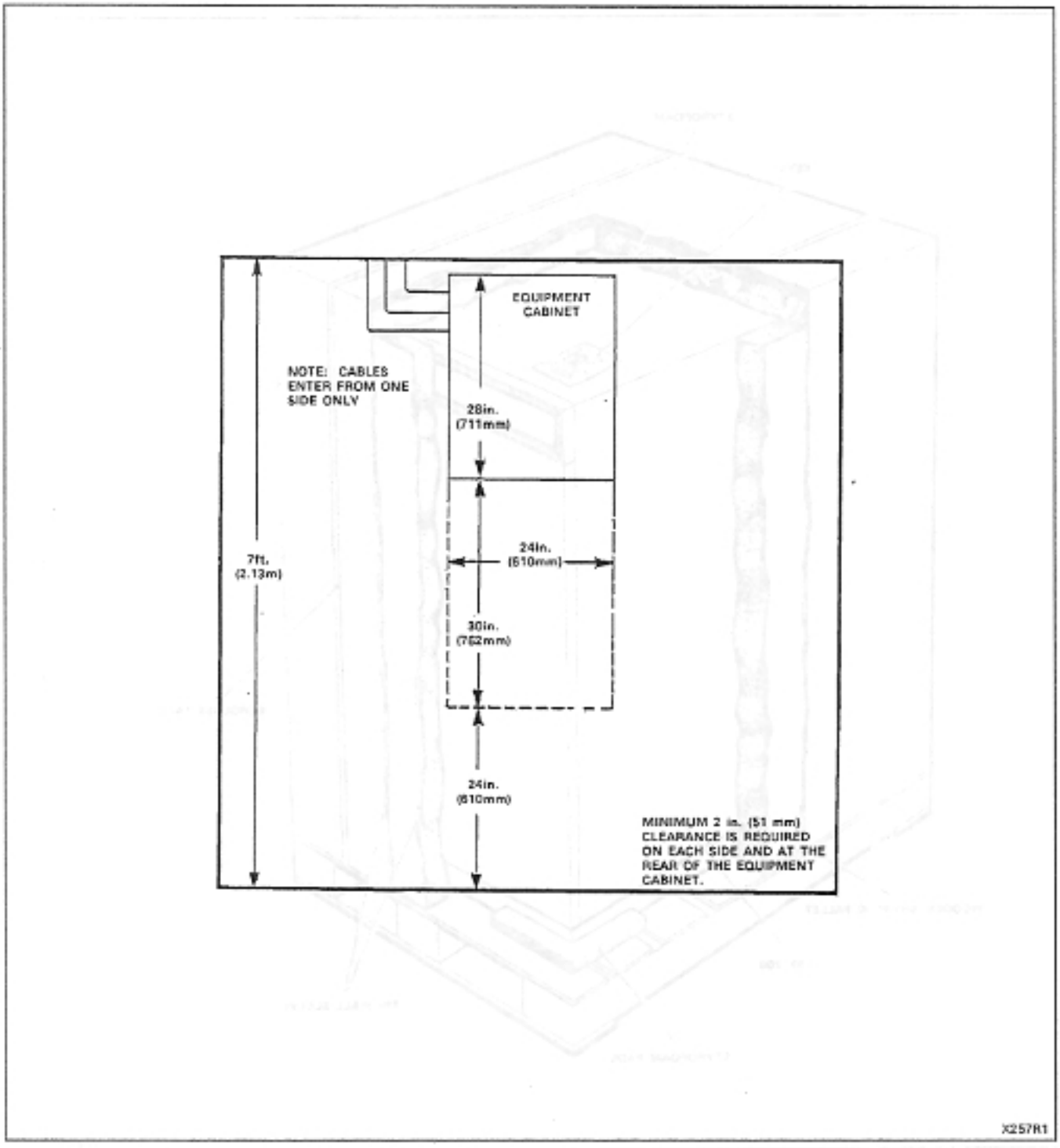

Fig. 401-3 Position Cabinet

INSPECT EQUIPMENT
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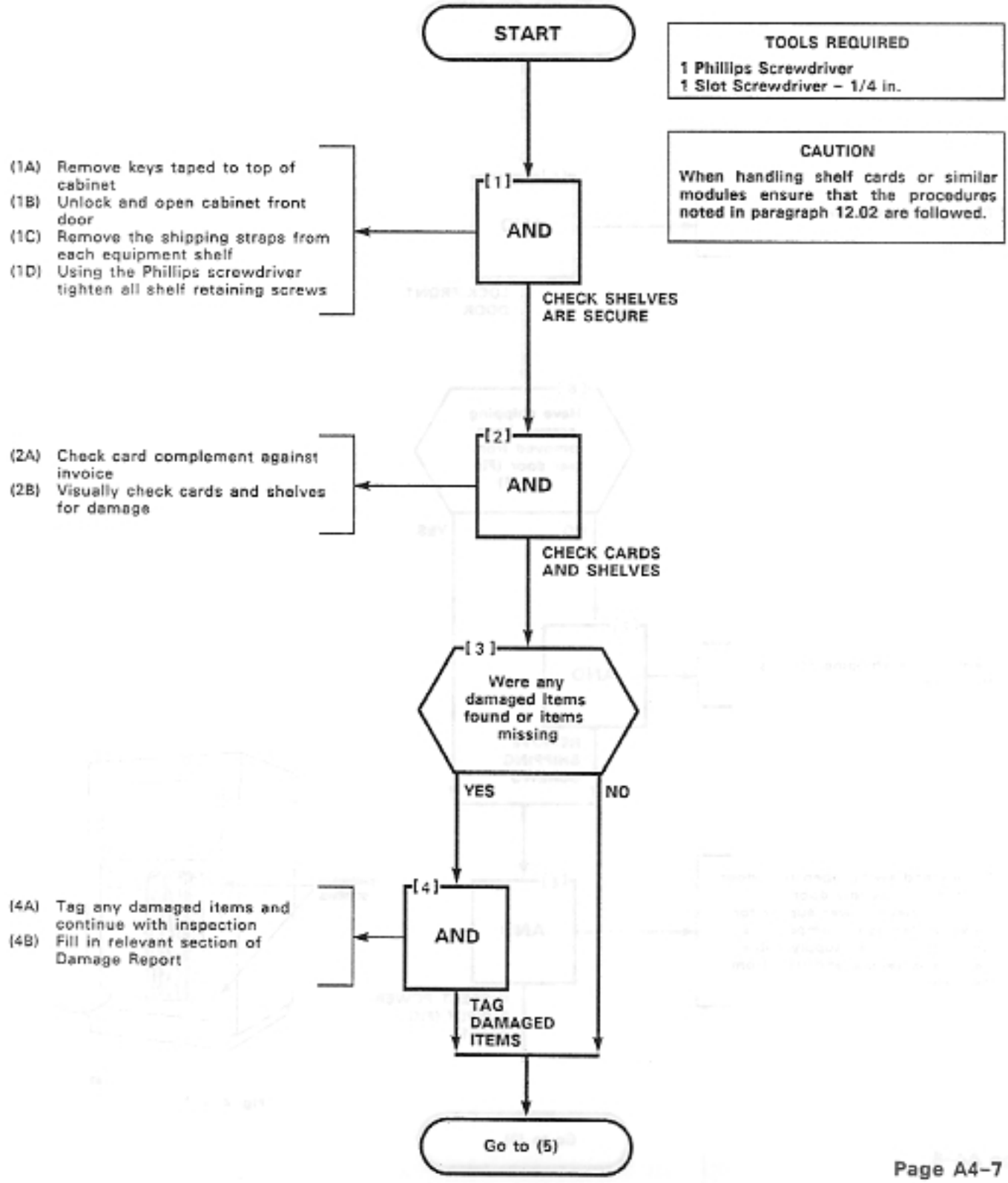

INSPECT EQUIPMENT
MAP200- 404
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From (4)

[5] AND

(5A) Close and lock cabinet front door

LOCK FRONT DOOR

[6] Have shipping screws been removed from rear door (Fig. 404-1)

NO

YES

[7] AND

(7A) Remove the shipping screws from rear door

REMOVE SHIPPING SCREWS

[8] AND

(8A) Unlock and swing open rear door
(8B) Open power supply door
(8C) Visually check power supply for loose or damaged components
(8D) Check that power supply cable harness is secure and free from damage

INSPECT POWER SUPPLY (FIG. 404-1)

Go to (9)

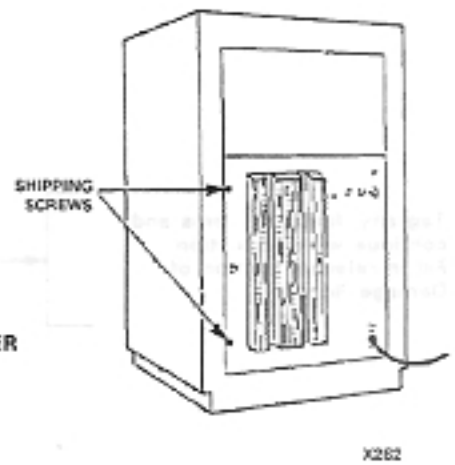

Fig. 404-1

INSPECT EQUIPMENT
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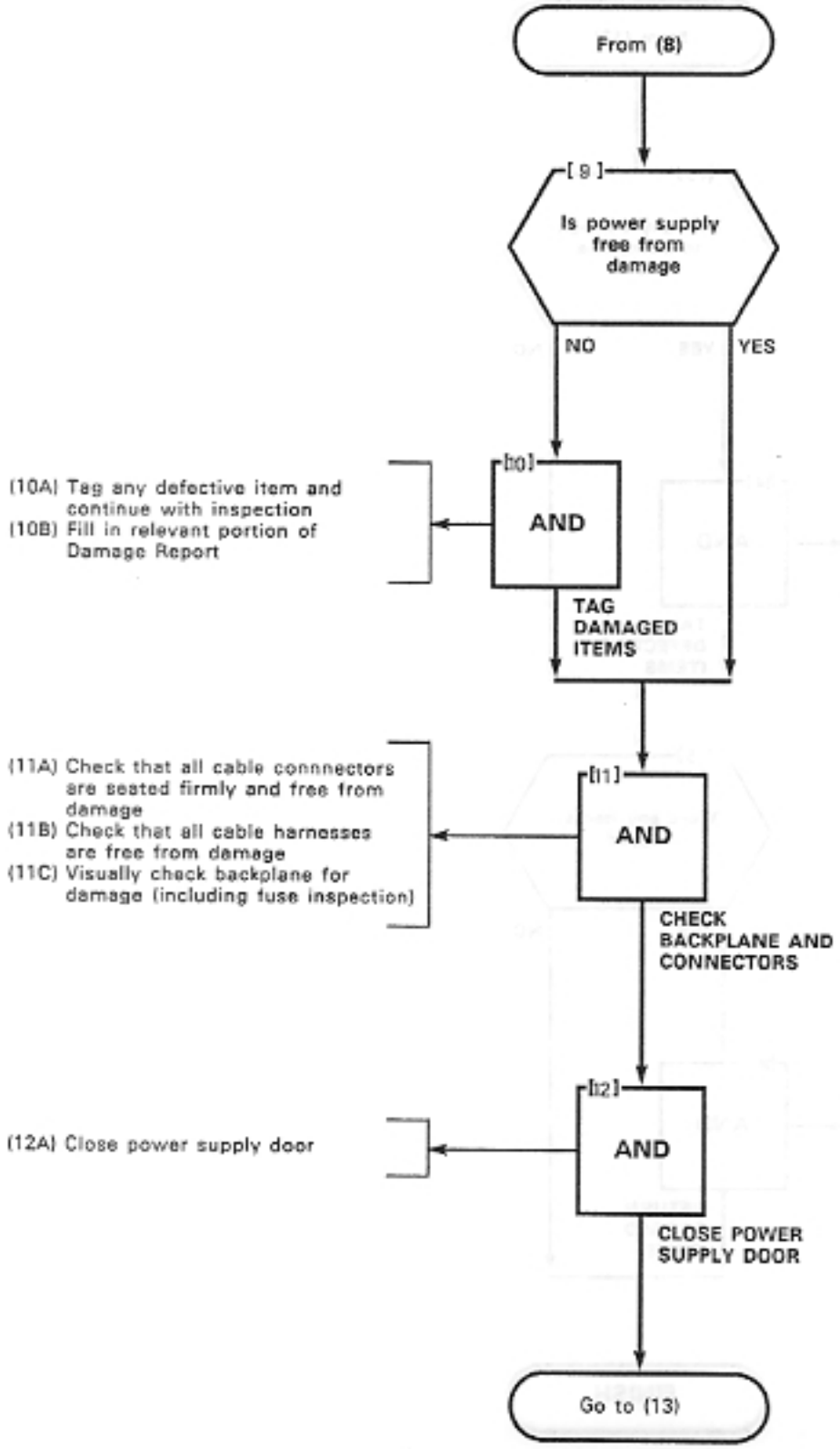

INSPECT EQUIPMENT
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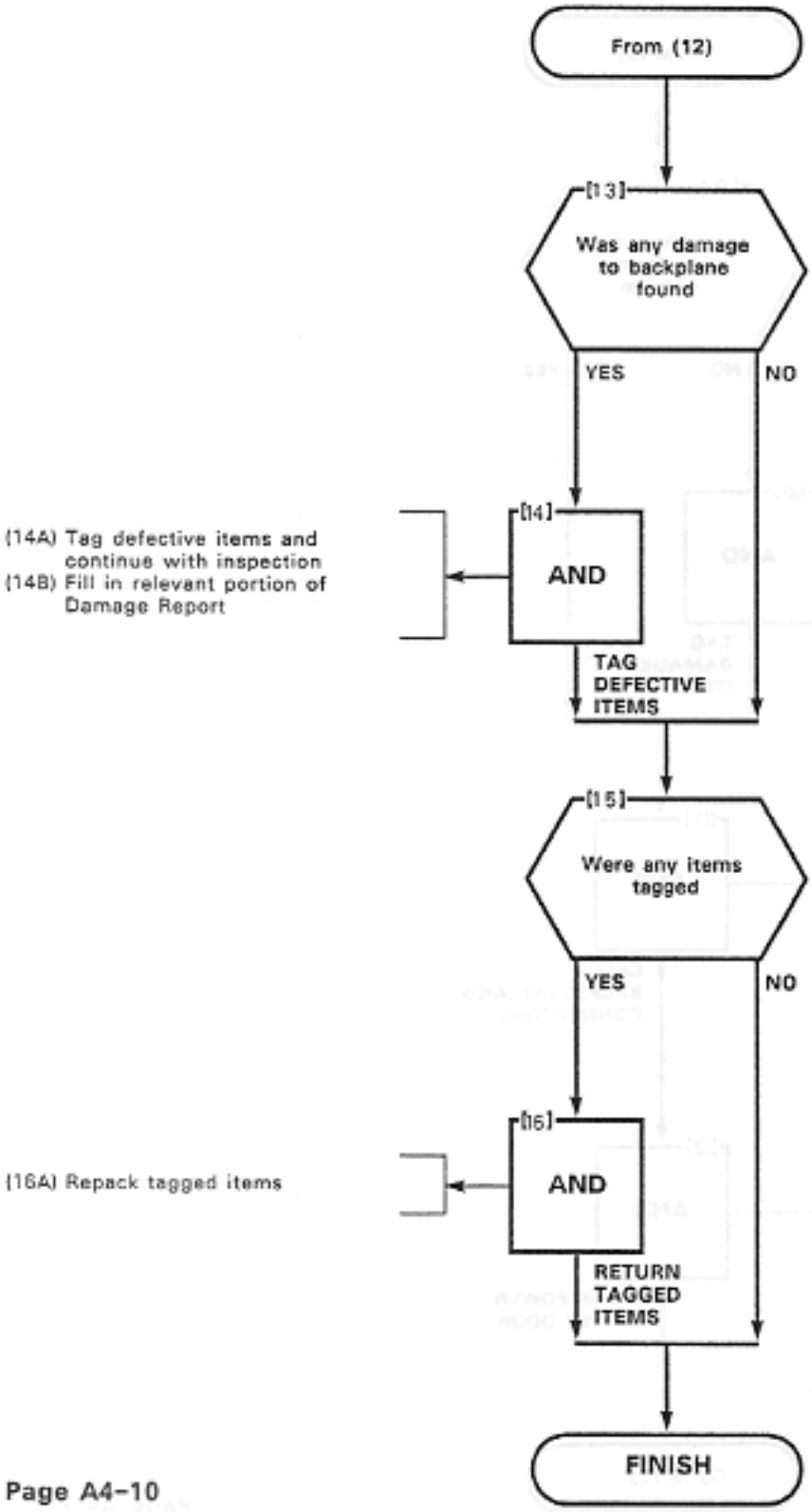

CONNECT CABLES
MAP200-405
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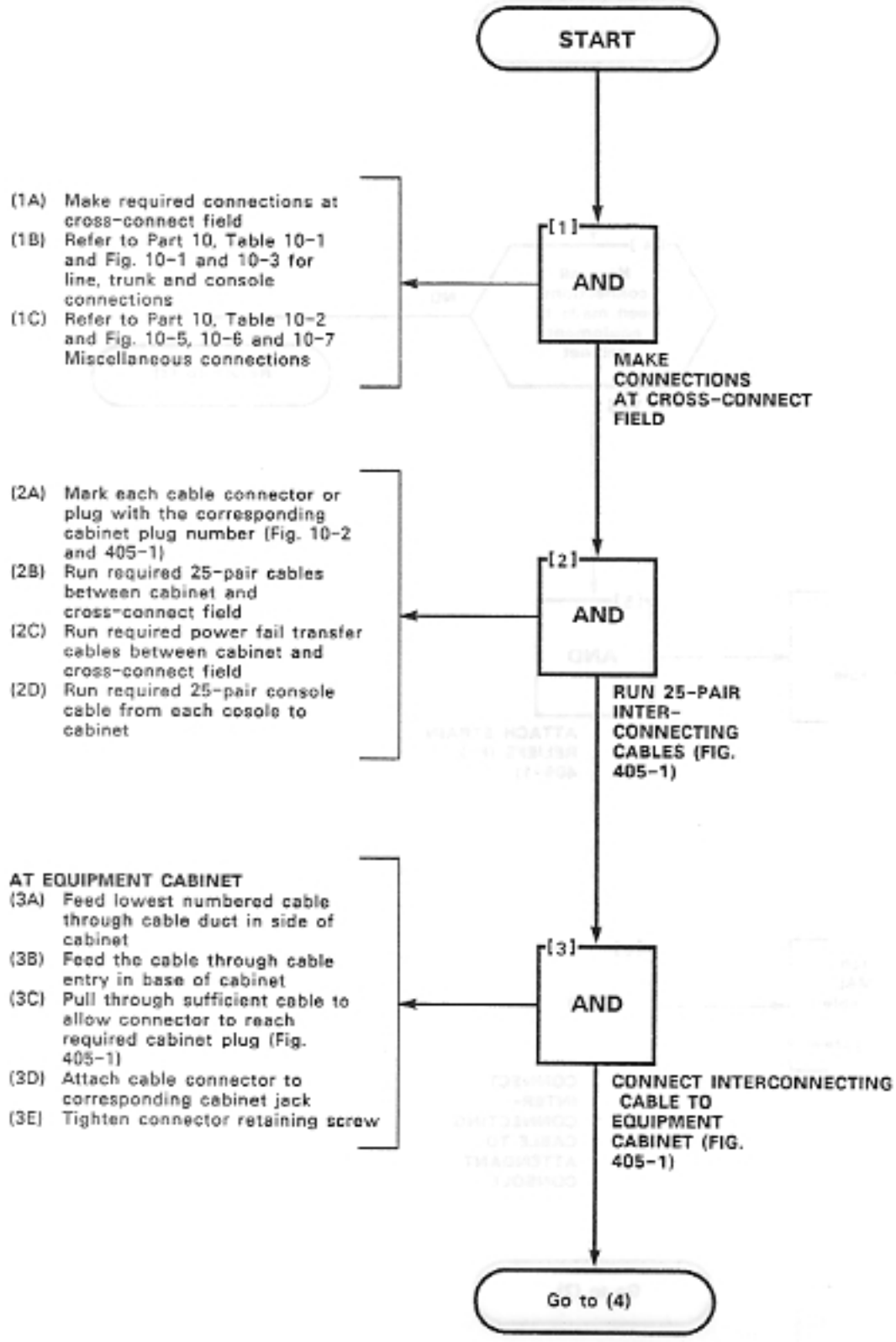

CONNECT CABLES
MAP200- 405
Issue 1, September 1983
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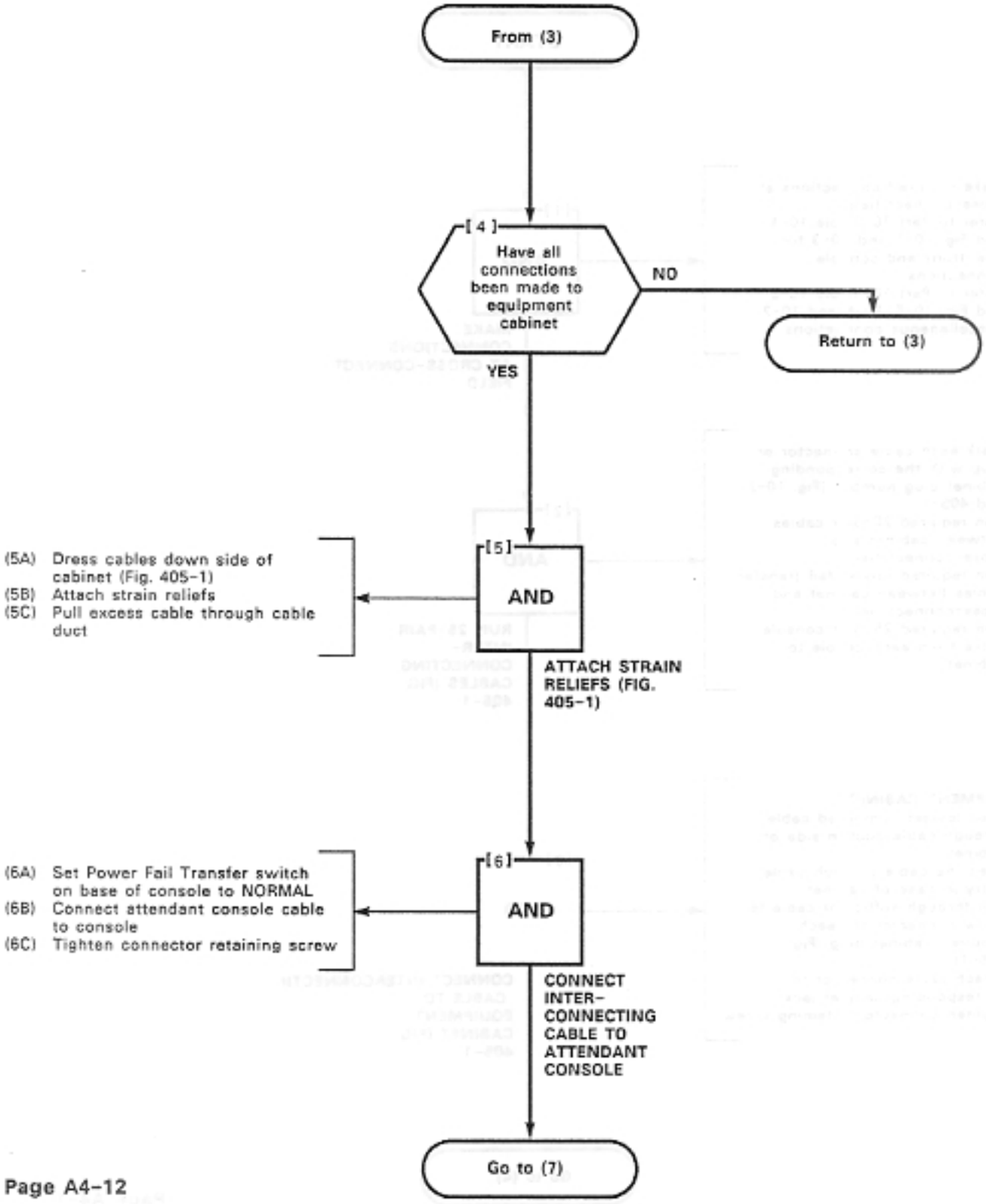

CONNECT CABLES
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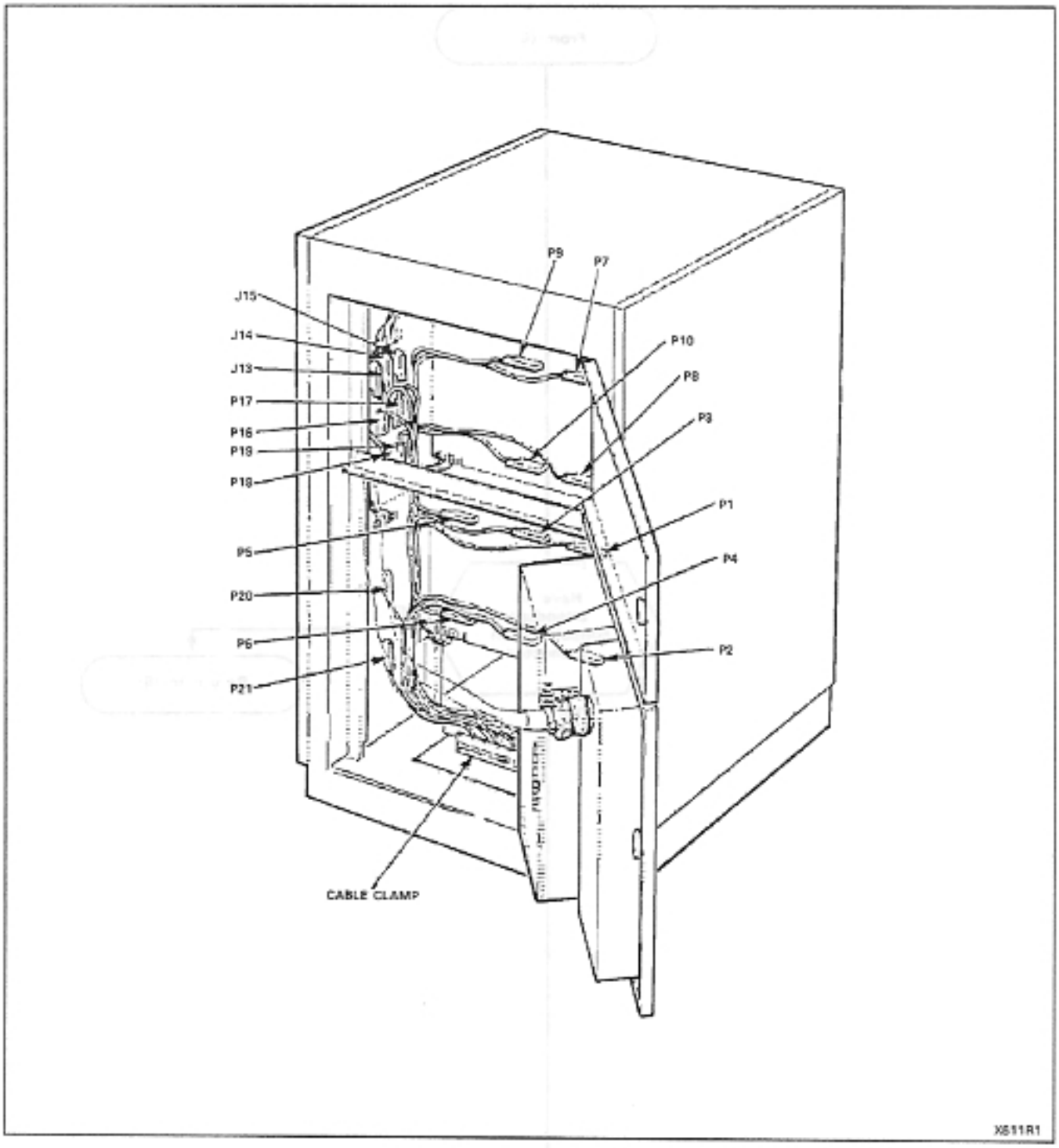

Fig. 405-1 SX-200 Rear View

CONNECT CABLES
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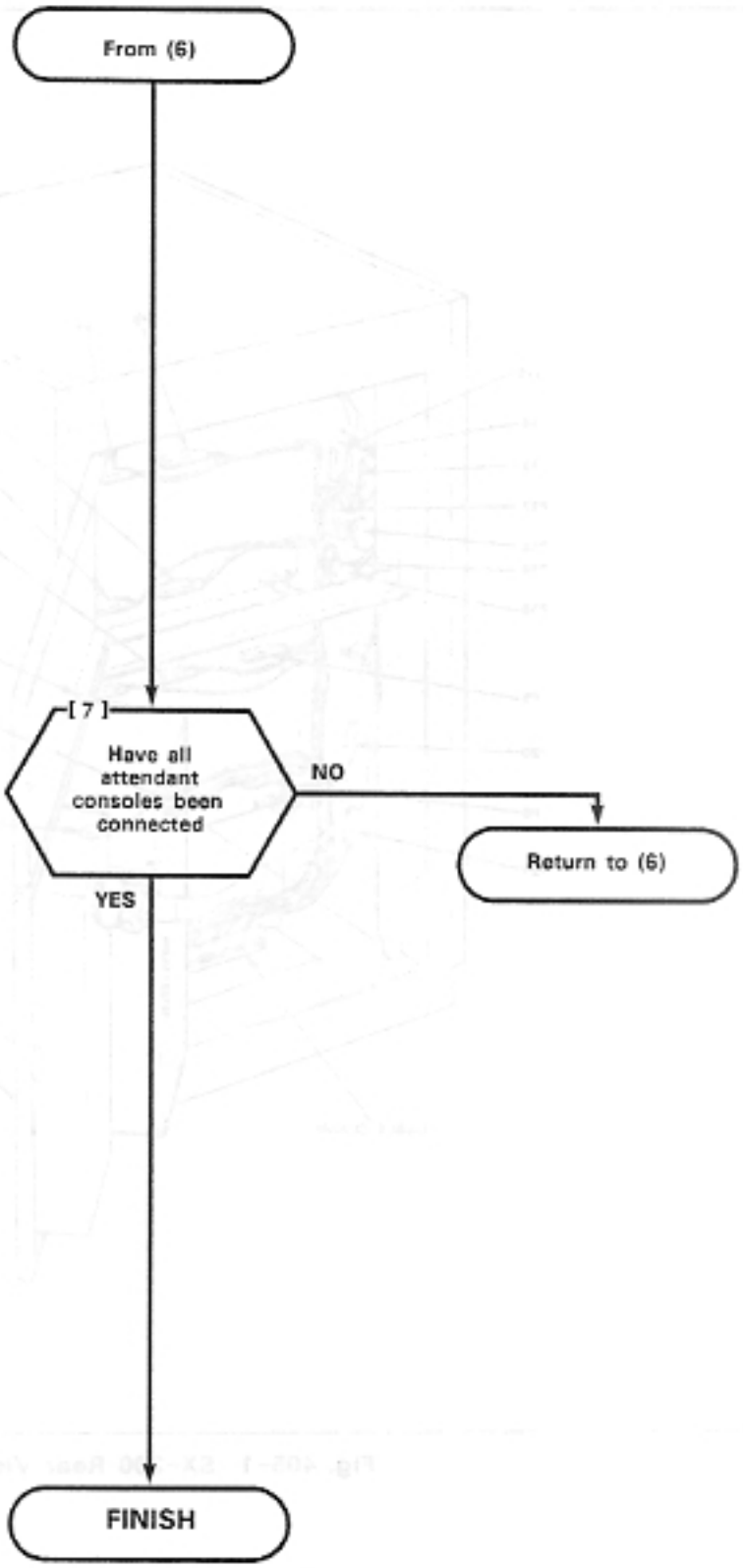

SET CARD SWITCHES
MAP200-406
Issue 1, September 1983
Sheet 1 of 1

The setting of switches, to result in the required mode of operation on the Trunk Cards is detailed in the MAP's contained in Appendix A-5. The installer should ensure that these cards are properly switched for the correct mode of operation prior to performing "Power-Up" as detailed in MAP200-407.

POWER-UP SYSTEM
MAP200-407
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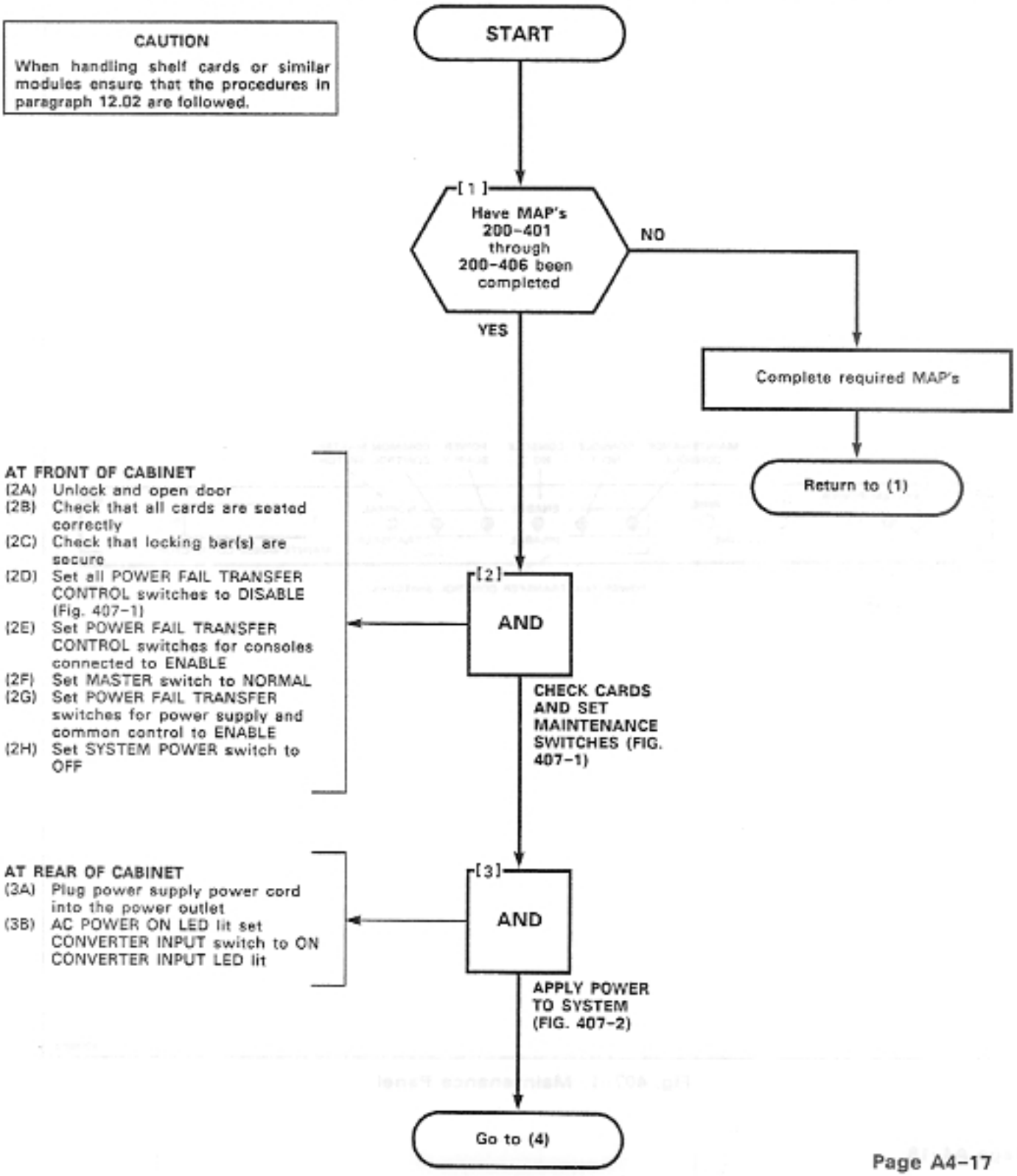

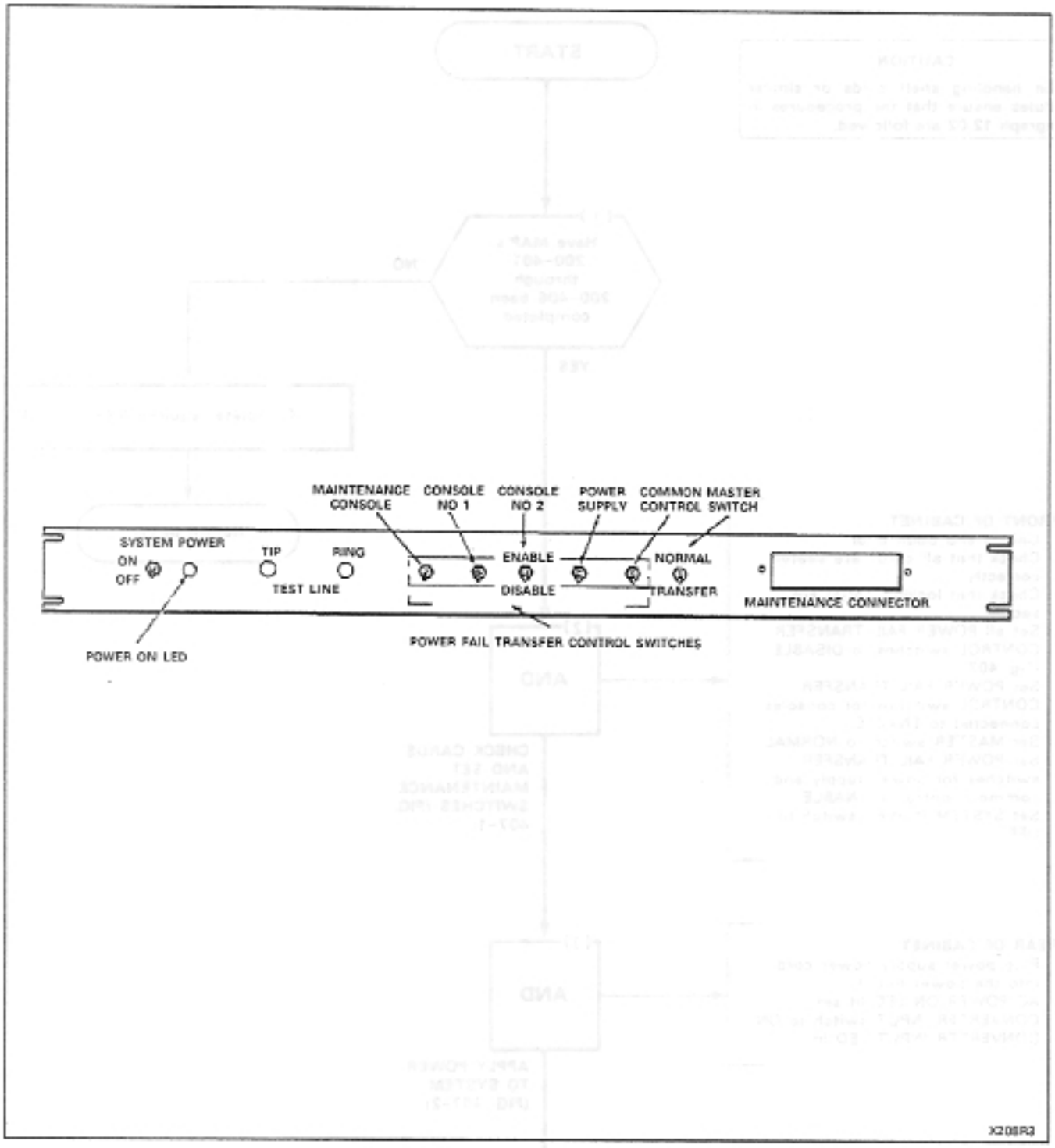

Fig. 407-1 Maintenance Panel

POWER-UP SYSTEM
MAP200-407
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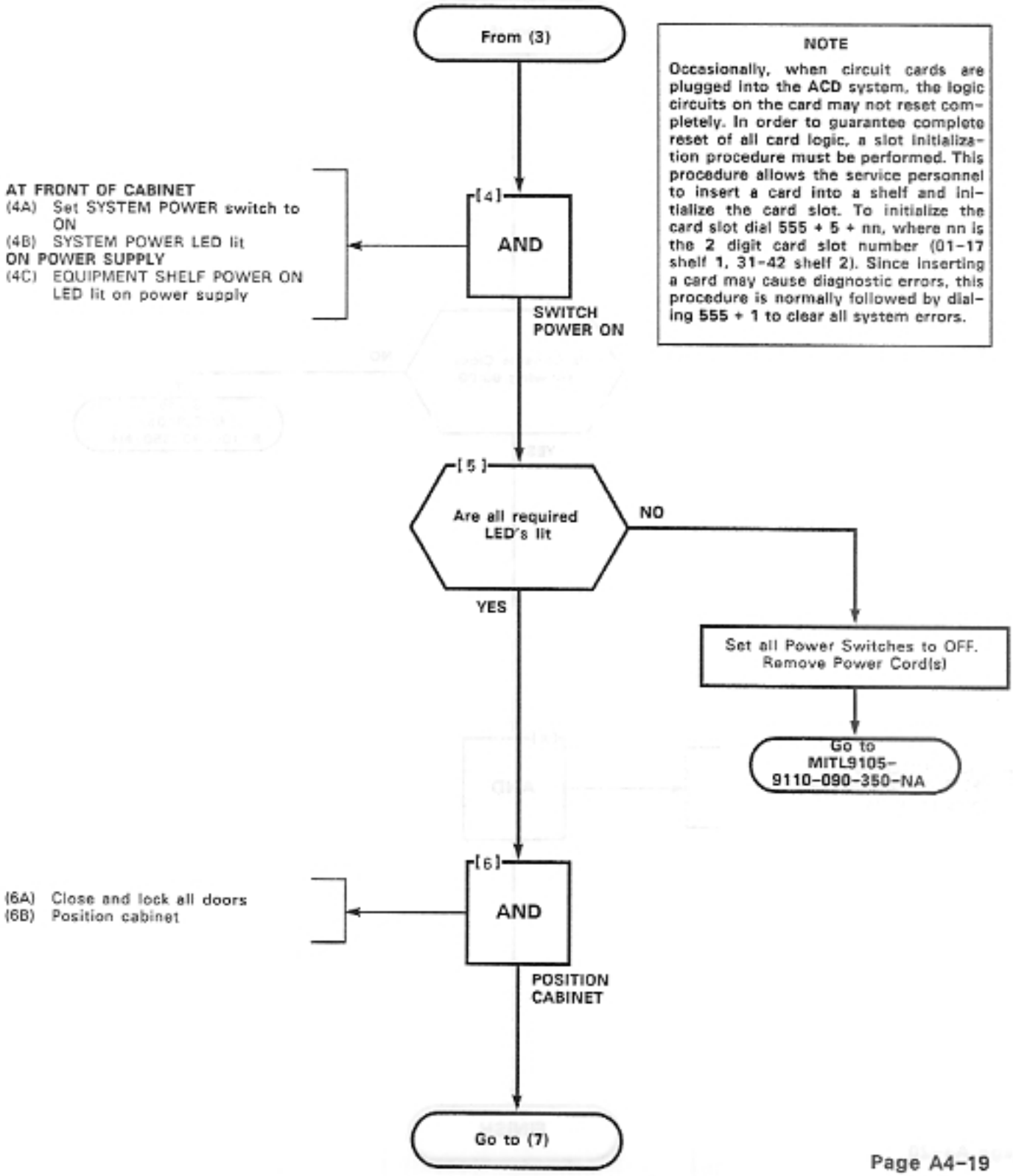

NOTE

Occasionally, when circuit cards are plugged into the ACD system, the logic circuits on the card may not reset completely. In order to guarantee complete reset of all card logic, a slot initialization procedure must be performed. This procedure allows the service personnel to insert a card into a shelf and initialize the card slot. To initialize the card slot dial 555 + 5 + nn, where nn is the 2 digit card slot number (01-17 shelf 1, 31-42 shelf 2). Since inserting a card may cause diagnostic errors, this procedure is normally followed by dialing 555 + 1 to clear all system errors.

POWER-UP SYSTEM
MAP200- 407
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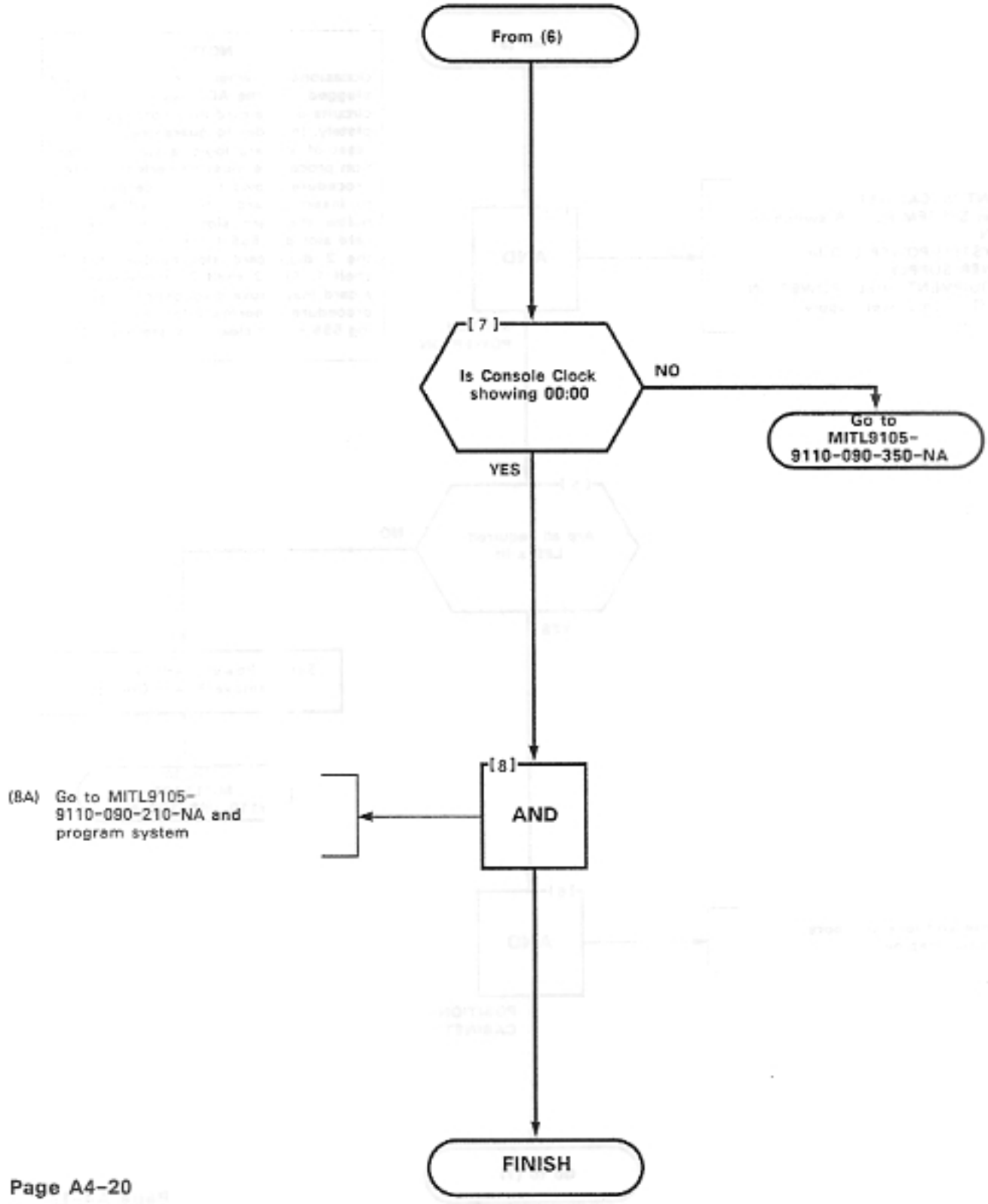


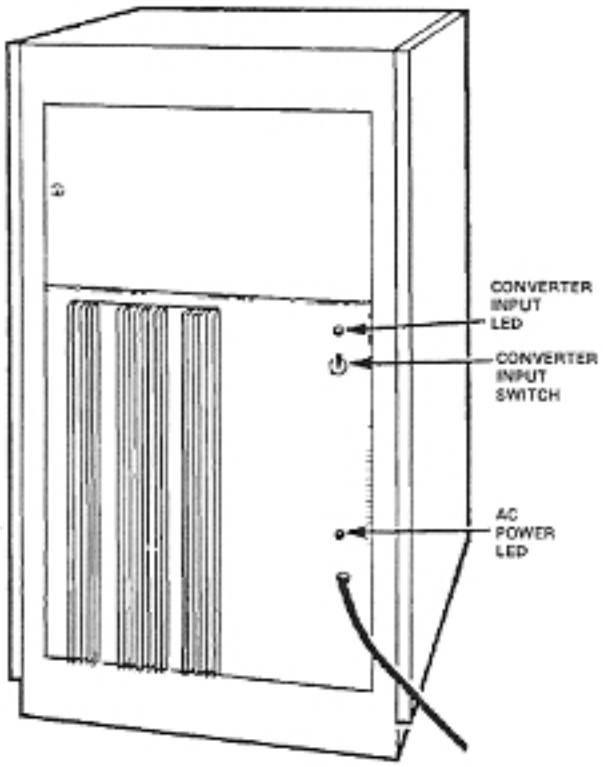


Fig. 407-2 SX-200 Rear View

APPENDIX 5
CARD SWITCH SETTINGS

1. GENERAL

A5.01 The MAP's contained in this Appendix (see Table A5-1) detail the procedures to be performed to result in the correct settings of the Trunk Card switches (i.e. those required to meet the particular needs of the installation).

A5.02 These procedures are performed during the installation of the SX-100 or SX-200 ACD Systems (referenced in Appendices 3 and 4).

TABLE A5-1
SETTING TRUNK CARD SWITCHES

Step	Procedure	Reference
1	Set CO Trunk Switches (Types 011-000/111-000)	MAP200-501
2	Set E&M/Tie Trunk Option Switches	MAP200-502
3	Set DID/Tie Trunk Option Switches	MAP200-503
4	Set Scanner Card Baud Rate Switch	MAP200-504
5	Set RAM/COS Switches	MAP200-505
6	Set CO Trunk Switches (Types 211-000/311-000)	MAP200-506
7	Set IPC Battery Switch	MAP200-507
8	Install SX-100 Fan Update Kit	MAP200-508

SET CO TRUNK SWITCHES (TYPES -011/111)
MAP200-501
Issue 1, September 1983
Sheet 1 of 7

CAUTION

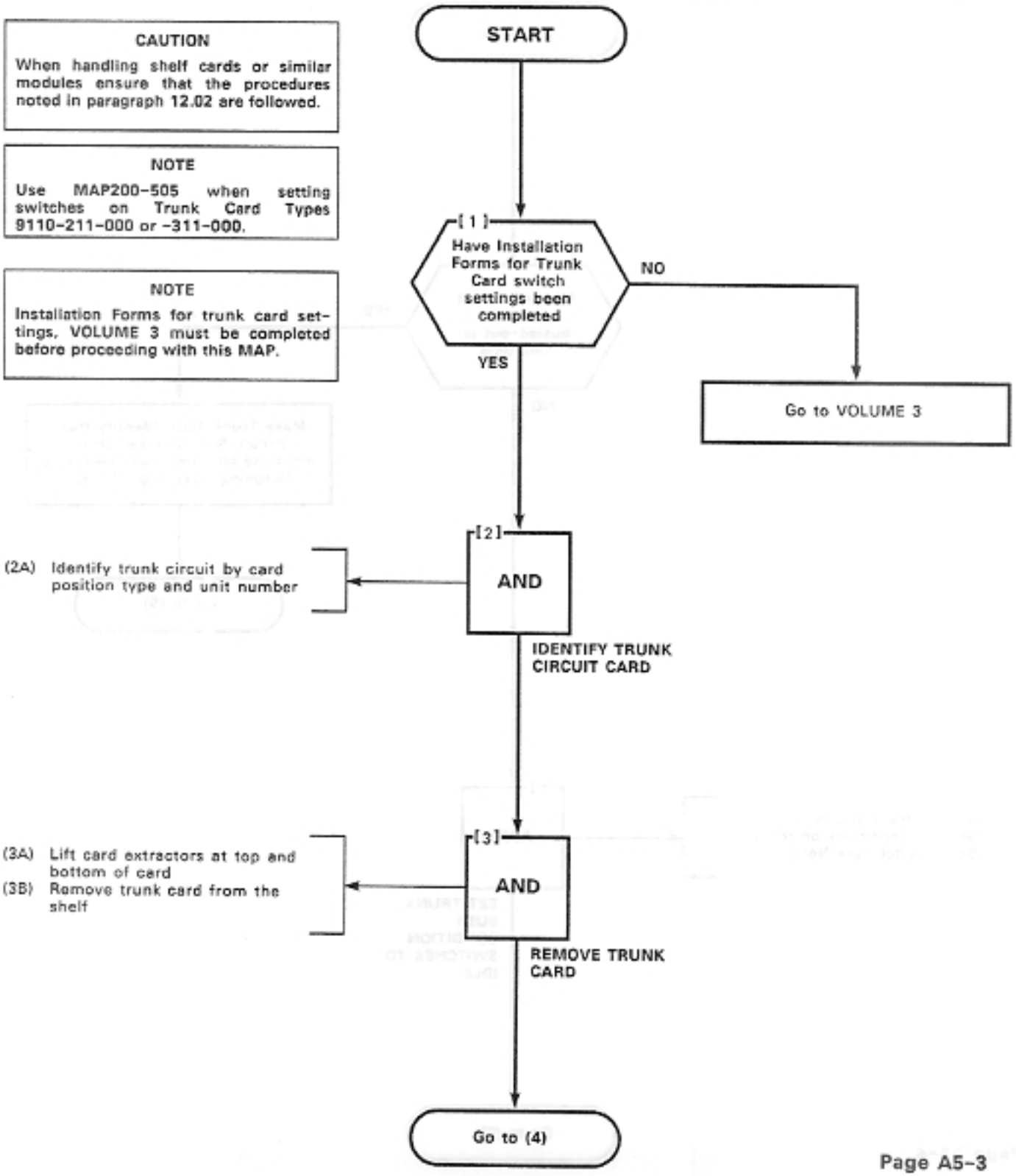
When handling shelf cards or similar modules ensure that the procedures noted in paragraph 12.02 are followed.

NOTE

Use MAP200-505 when setting switches on Trunk Card Types 9110-211-000 or -311-000.

NOTE

Installation Forms for trunk card settings, VOLUME 3 must be completed before proceeding with this MAP.



SET CO TRUNK SWITCHES (TYPES -011/111)
MAP200- 501
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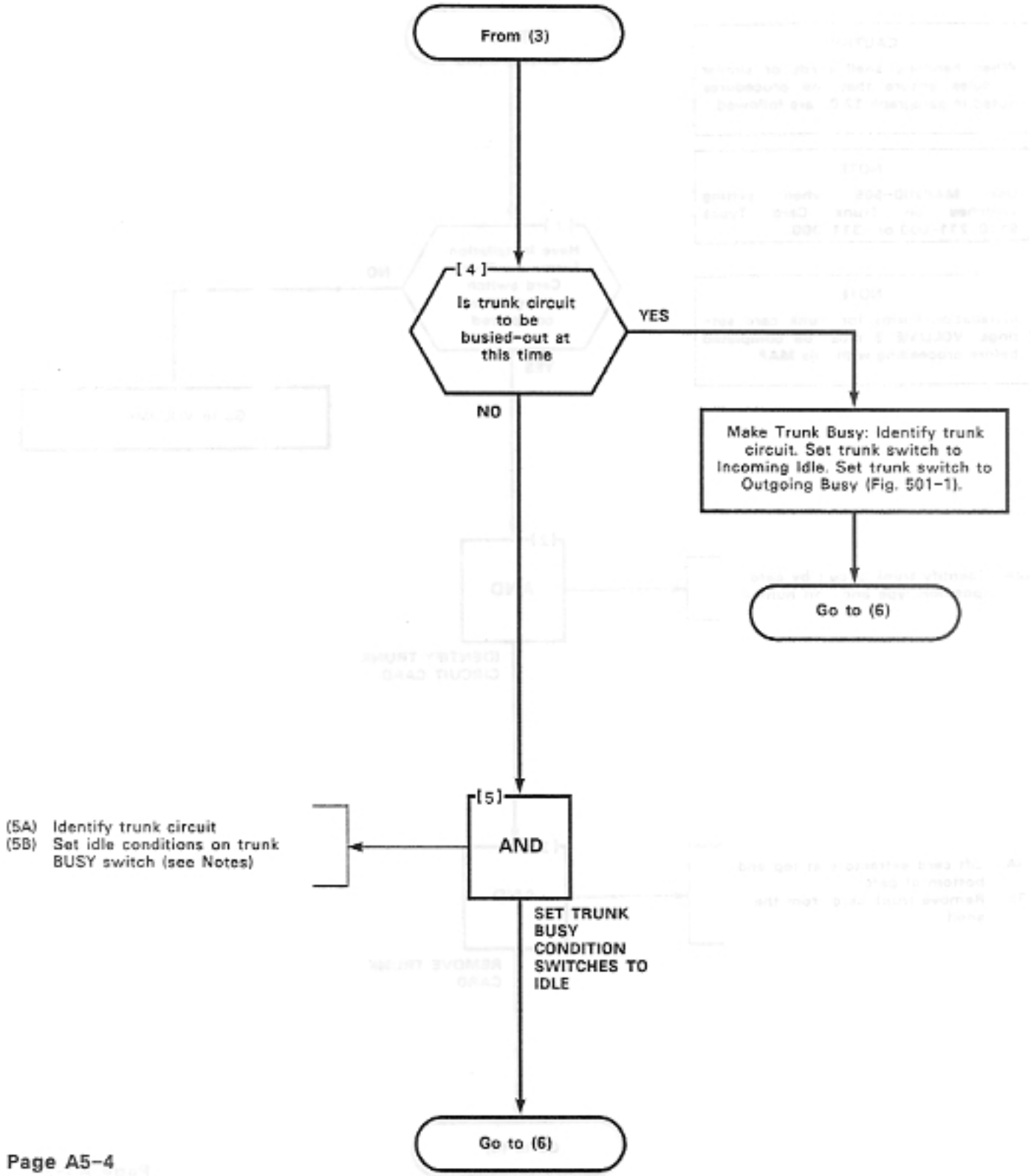

SET CO TRUNK SWITCHES (TYPES -011/111)
MAP200-501
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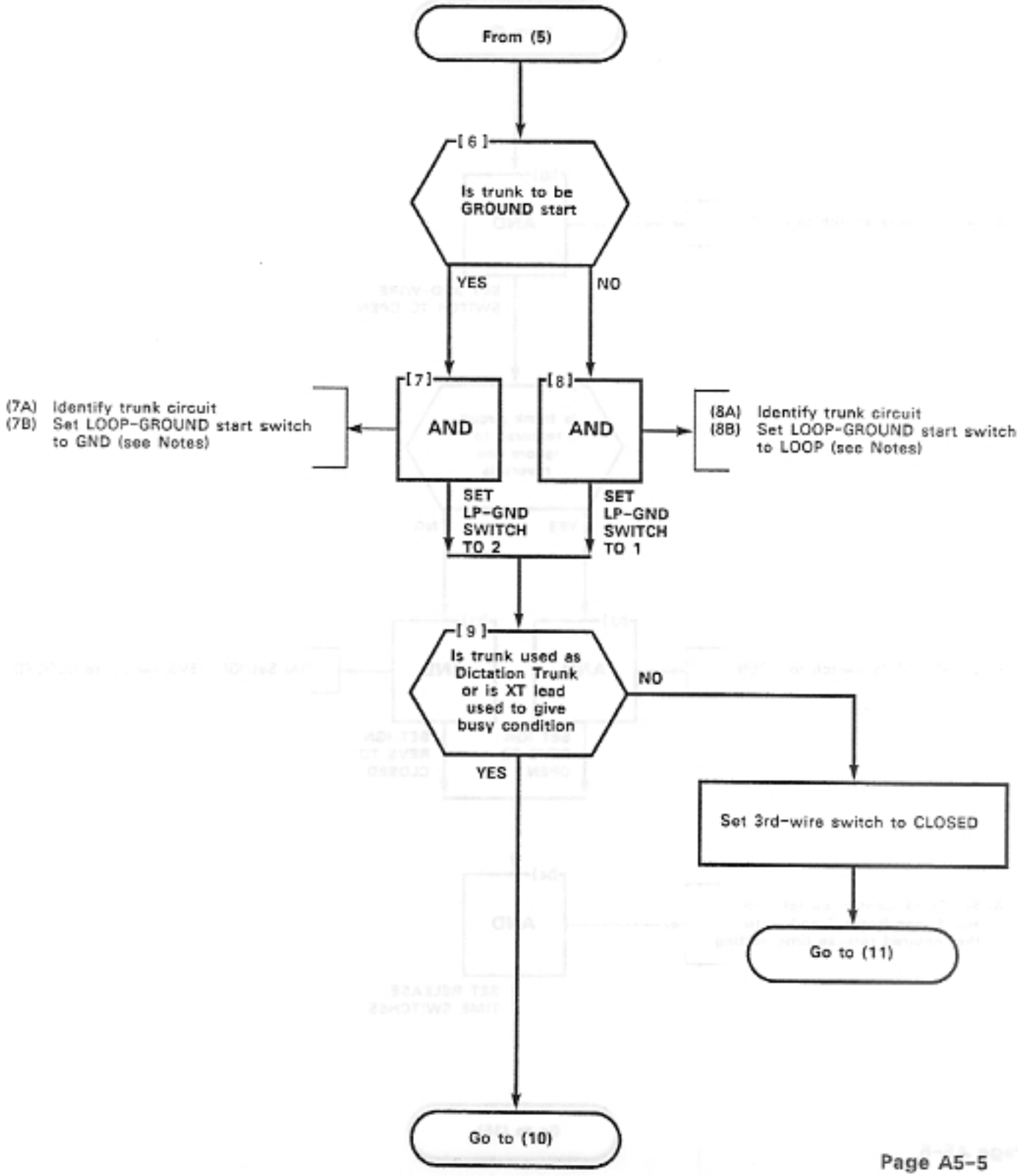

SET CO TRUNK SWITCHES (TYPES -011/111)
MAP200- 501
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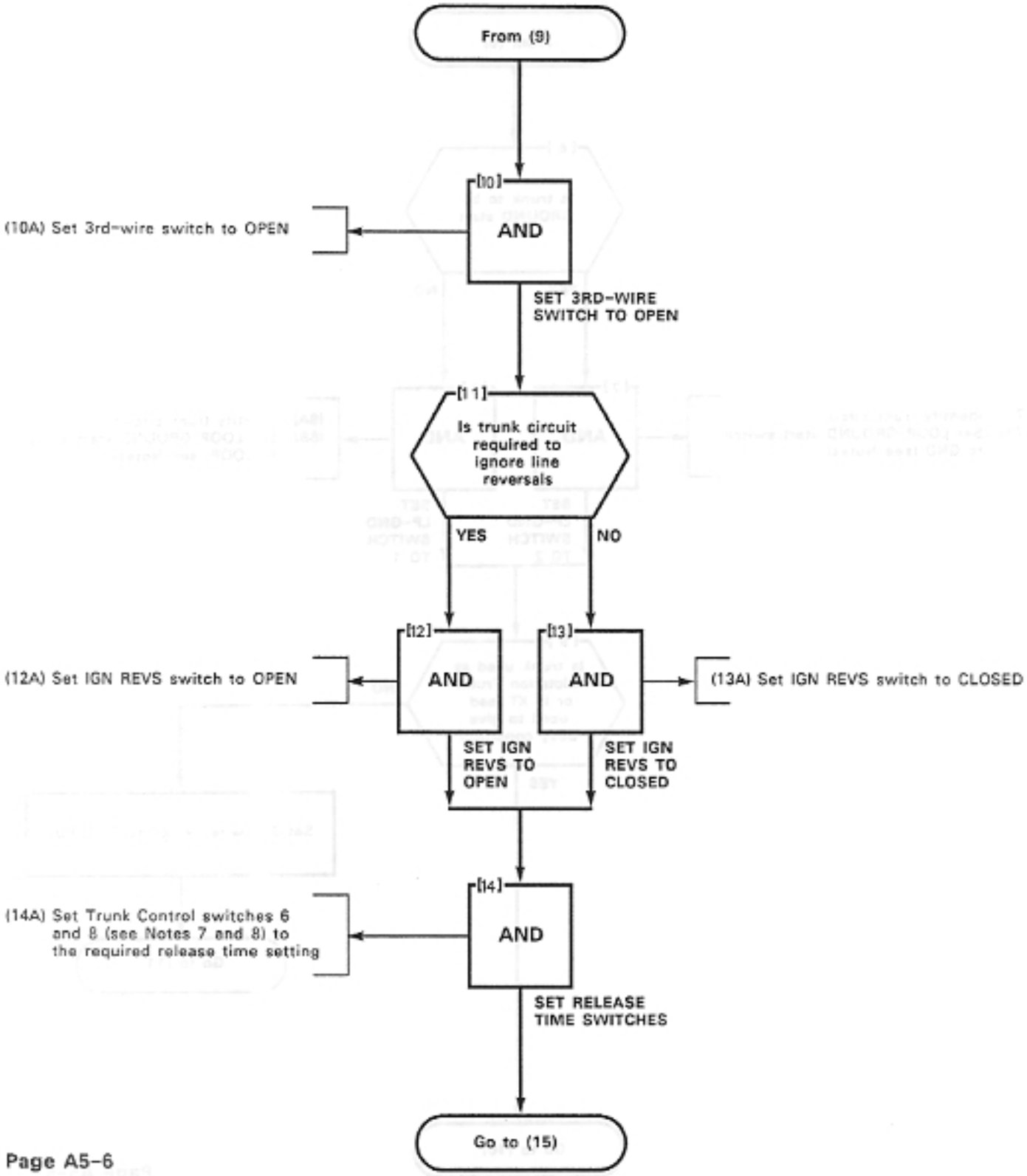

SET CO TRUNK SWITCHES (TYPES -011/111)
MAP200-501
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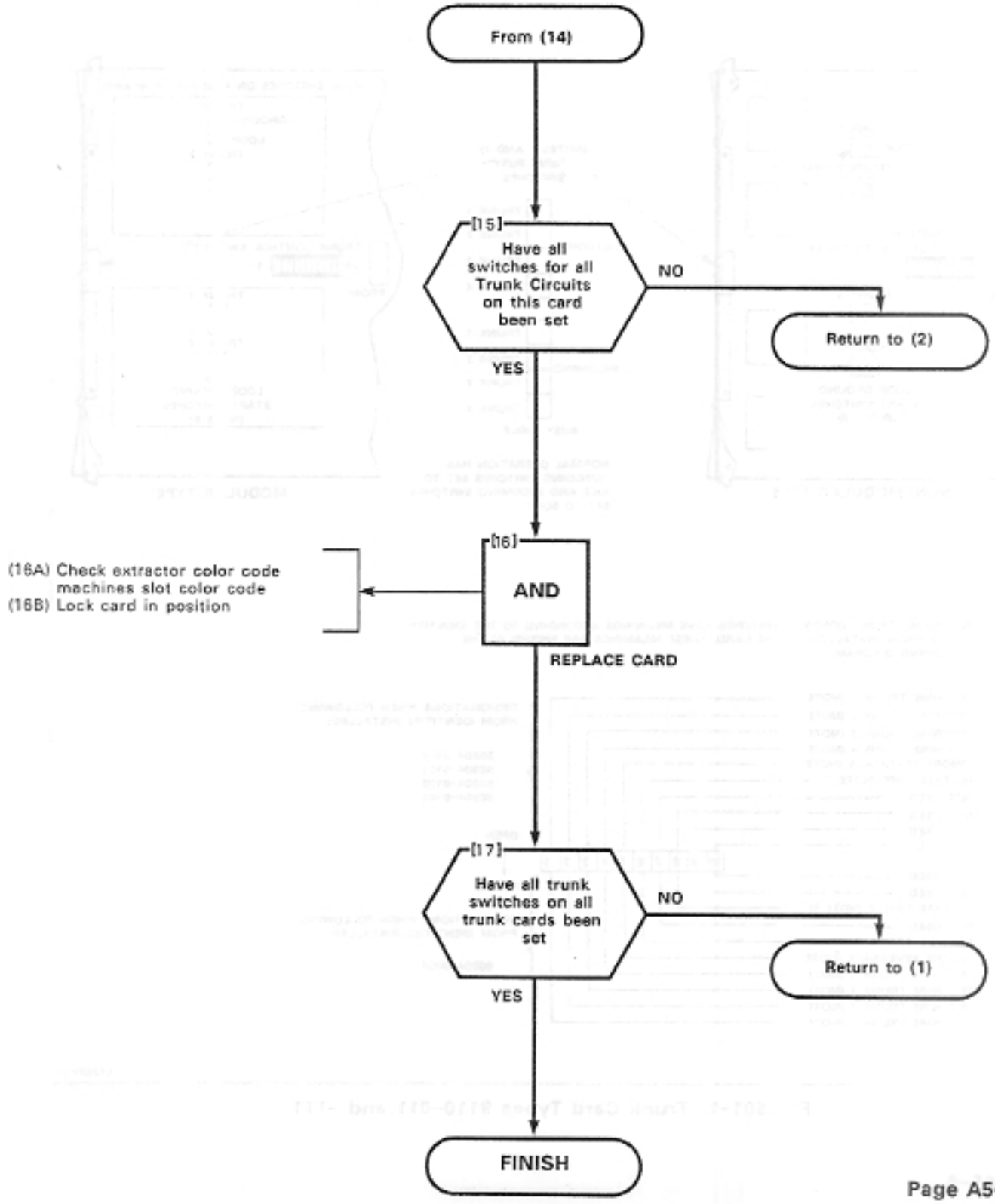

SET CO TRUNK SWITCHES (TYPES -011/111)
MAP200- 501
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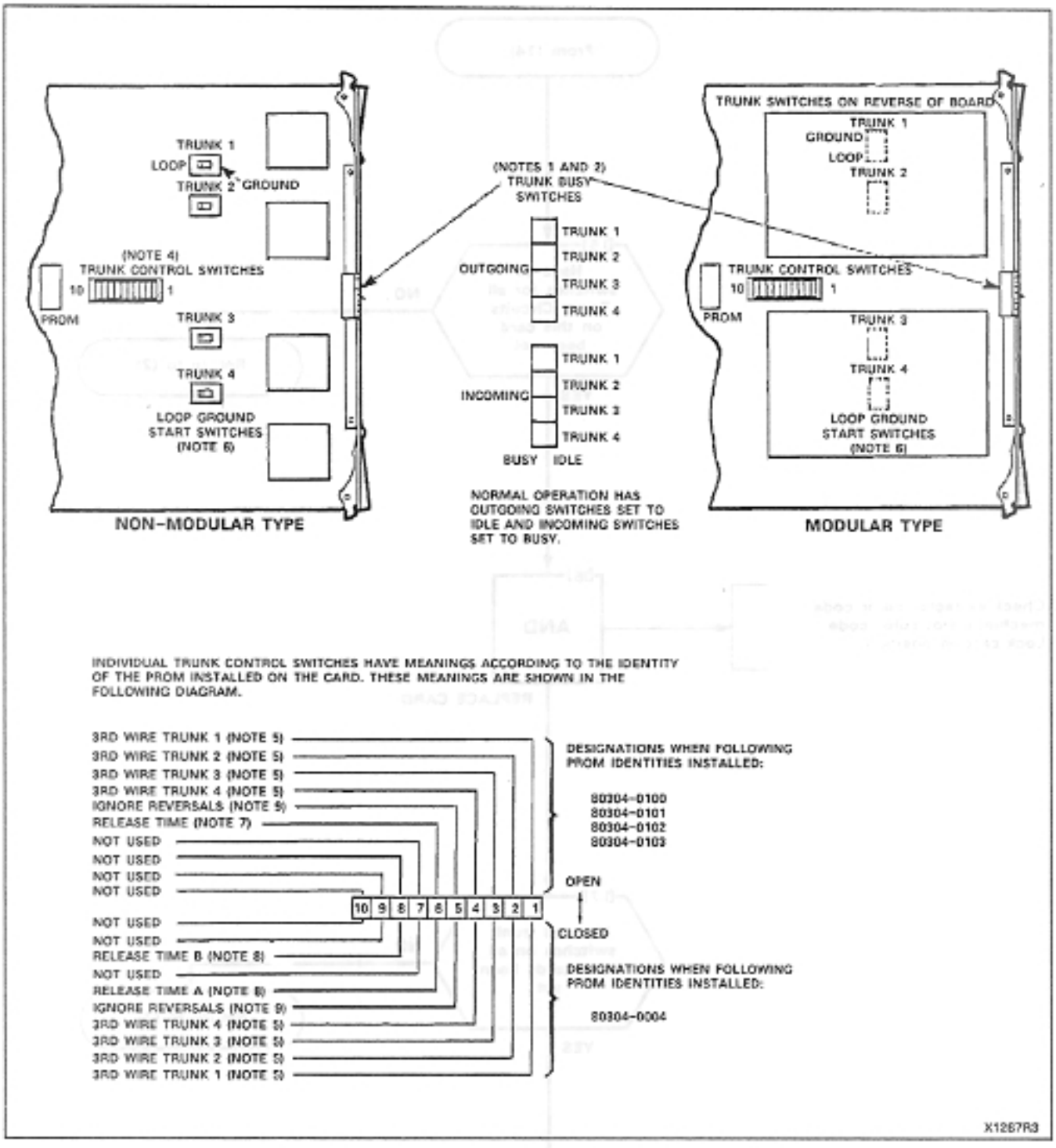

Fig. 501-1 Trunk Card Types 9110-011 and -111

SET CO TRUNK SWITCHES (TYPES -011/111)
MAP200-501
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NOTES:

TRUNK BUSY SWITCHES

1. OUTGOING BUSY SWITCHES (1 PER TRUNK) CAN BE SET FOR EITHER:
   IDLE - NORMAL TRUNK OPERATION
   BUSY - TRUNK CANNOT BE SEIZED FOR OUTGOING CALL

2. THE "OUTGOING BUSY" CONDITION MAY BE SET EITHER BY THE OUTGOING BUSY SWITCH (NOTE 1), OR BY THE CONSOLE "TRUNK BUSY OUT" FUNCTION. WHEN THIS CONDITION IS IN EFFECT THE INCOMING BUSY SWITCH AFFECTS THE TRUNK CONDITION AS FOLLOWS:
   IDLE - NO ANSWER WILL BE GIVEN TO INCOMING CO CALLS
   BUSY - A PERMANENT SEIZURE CONDITION IS GIVEN TOWARDS THE CO

3. INCOMING BUSY HAS NO EFFECT WHILE OUTGOING BUSY IS NOT SET.

TRUNK CONTROL SWITCHES

4. ACTIVE TRUNK CONTROL SWITCHES ON NONMODULAR CARD ARE CONFINED TO SWITCHES 1, 2, 3 AND 4, CORRESPONDING TO TRUNK 1, 2, 3 AND 4, 3RD WIRE CONDITIONS RESPECTIVELY (NOTE 5).

3RD WIRE SWITCHES

5. THE 3RD WIRE LEAD WHEN REQUIRED IS CONNECTED TO THE CO TO PROVIDE CERTAIN FACILITIES. THESE INCLUDE THE RECORDING OF METER PULSES (EXTENDED FROM THE CO); OR ANOTHER REQUIREMENT MAY BE A BUSY CONDITION WHEN DICTATION OR CODE CALLING EQUIPEMNT AT THE CO HAS BEEN TAKEN INTO SERVICE BY OTHER TRUNKS. THE SWITCH SETTING IS EITHER:
   OPEN - RECOGNIZED GROUND FROM THE CO AS A BUSY CONDITION
   CLOSED - 3RD WIRE SWITCH IS INEFFECTIVE

LOOP/GROUND START SWITCHES

6. THE LOOP/GROUND START SWITCHES (1 PER TRUNK) CAN BE SET TO RESULT IN THE FOLLOWING CONDITIONS:
   LOOP (1) SETTING - USED FOR LOOP-START TYPE TRUNKS
   GROUND (2) SETTING - USED FOR GROUND-START TYPE TRUNKS

RELEASE TIME SWITCHES

7. VALID TRUNK RELEASE TIMES ARE RECOGNISED BY THE FOLLOWING RELEASE TIME SETTINGS ON -0100 TO -0103 TYPE PROMS:
   OPEN - GREATER THAN 50 ms OF NO LOOP CURRENT
   CLOSED - GREATER THAN 500 ms OF NO LOOP CURRENT

8. VALID TRUNK RELEASE TIMES ARE RECOGNIZED BY THE FOLLOWING RELEASE TIME SETTINGS FOR PROM TYPE -0004 WITH SWITCHES "A" AND "B":

"A" SETTING	"B" SETTING	RELEASE TIME
OPEN	CLOSED	50 ms
CLOSED	CLOSED	500 ms
OPEN	OPEN	2.5 s
CLOSED	OPEN	INFINITE (NON-RELEASE)

IGNORE REVERSALS

9. IF LINE REVERSALS ON THE TRUNK CIRCUIT ARE REQUIRED TO HAVE NO EFFECT THE IGNORE REVERSALS SWITCH IS SET TO "OPEN". IF LINE REVERSALS ARE TO BE RECOGNIZED THE SWITCH IS SET TO CLOSED.

SET E&M/TIE TRUNK OPTION SWITCHES
MAP200-502
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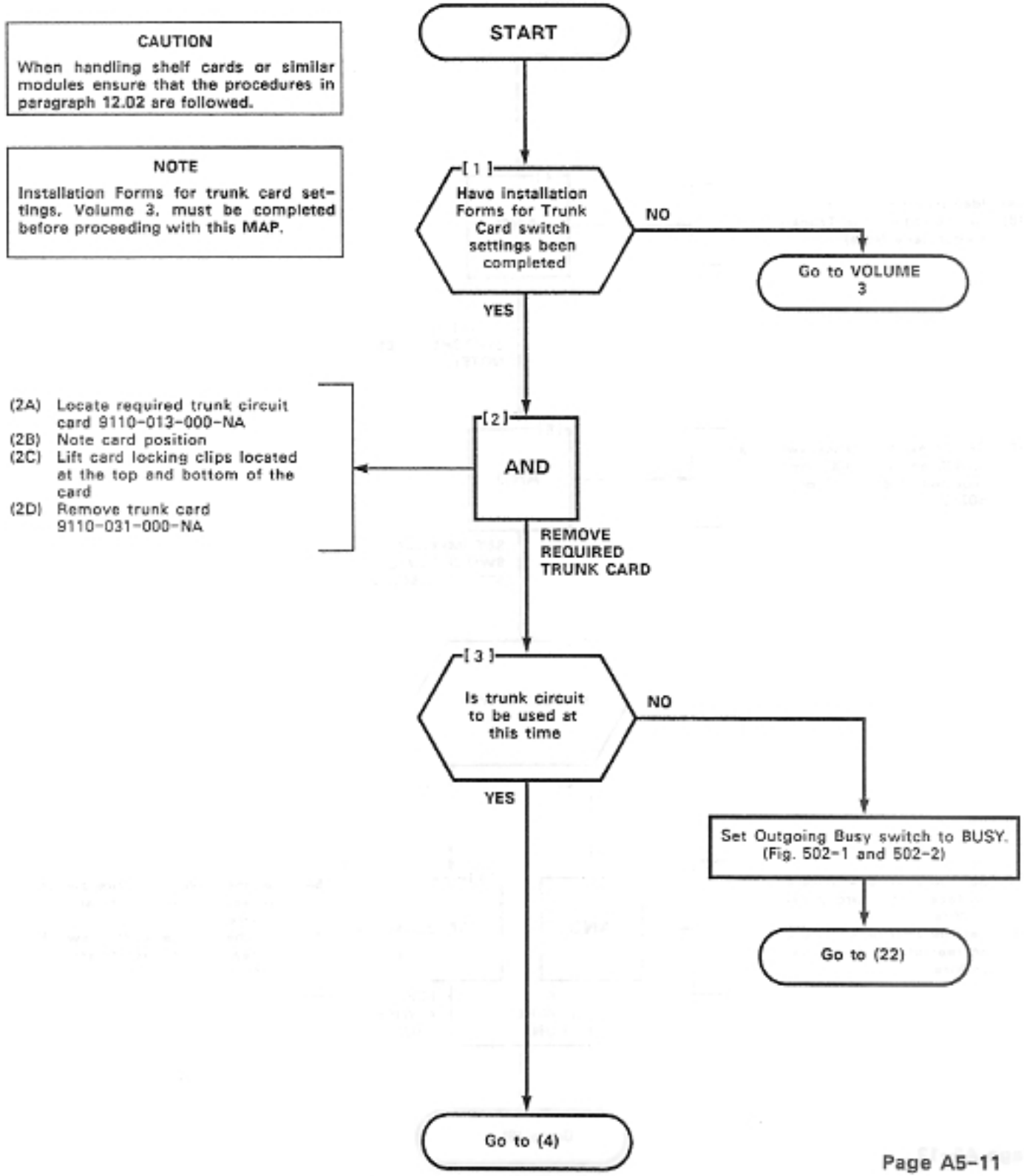
CAUTION

When handling shelf cards or similar modules ensure that the procedures in paragraph 12.02 are followed.

NOTE

Installation Forms for trunk card settings, Volume 3, must be completed before proceeding with this MAP.



SET E&M/TIE TRUNK OPTION SWITCHES
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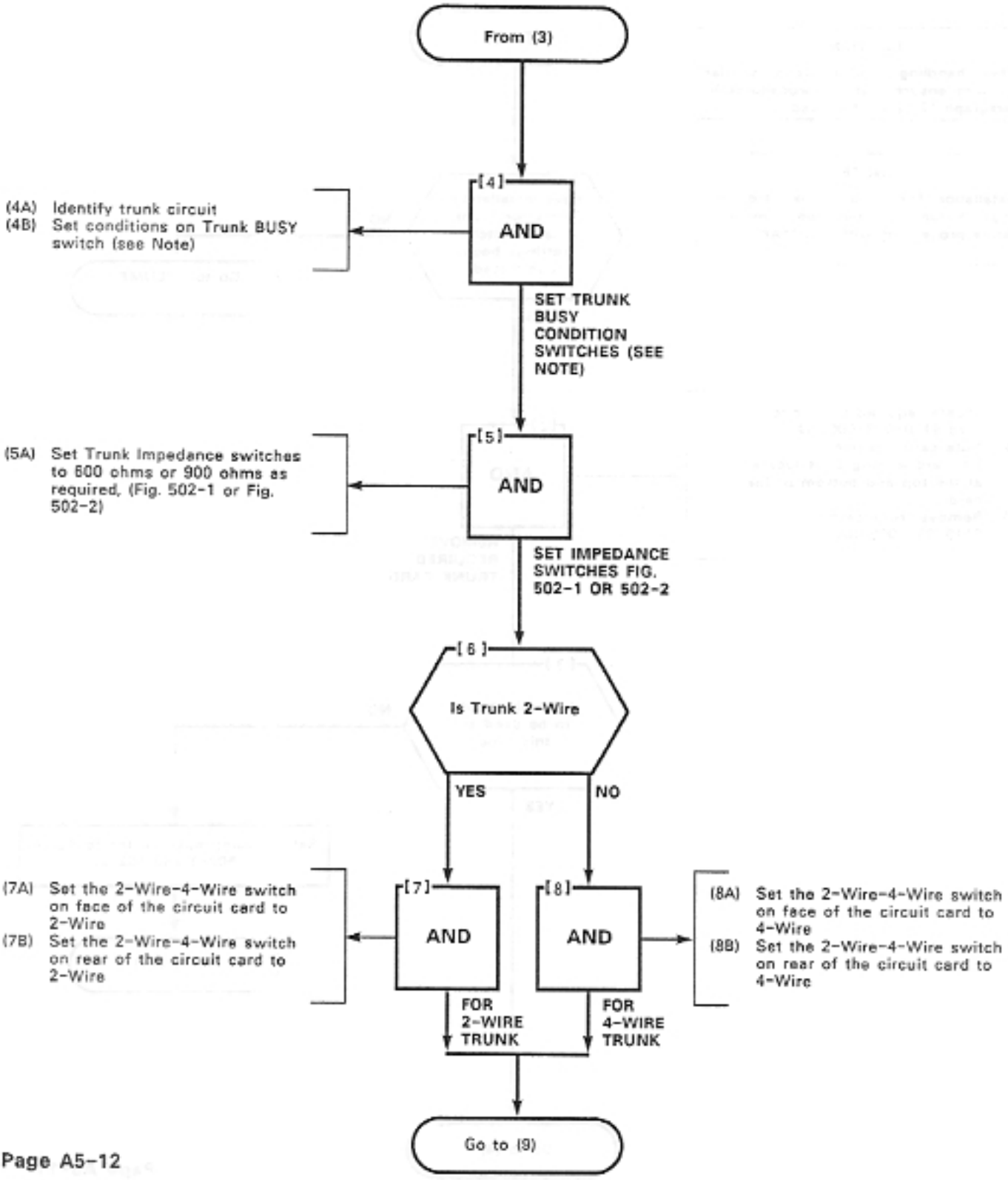

SET E&M/TIE TRUNK OPTION SWITCHES
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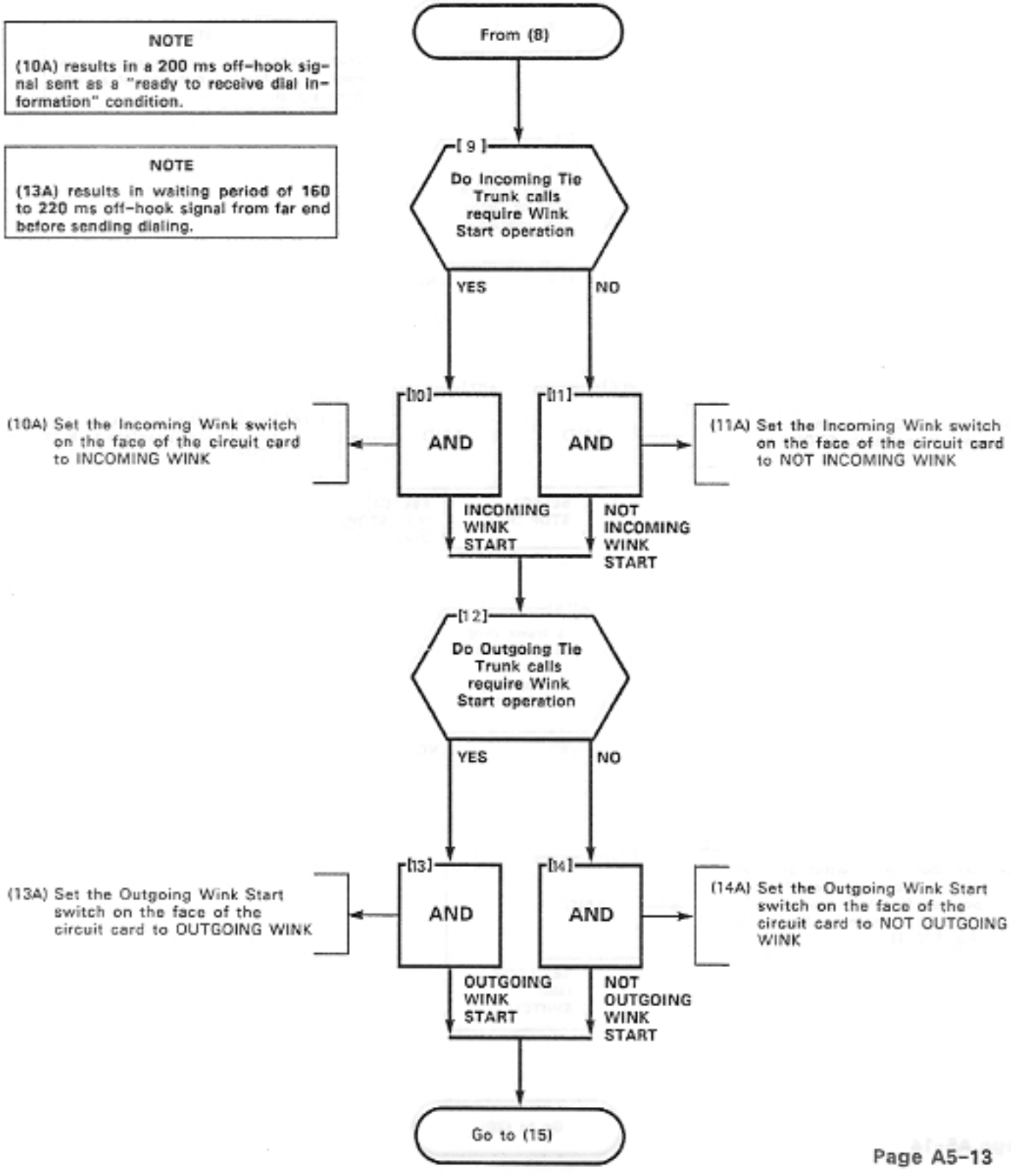

SET E&M/TIE TRUNK OPTION SWITCHES
MAP200- 502
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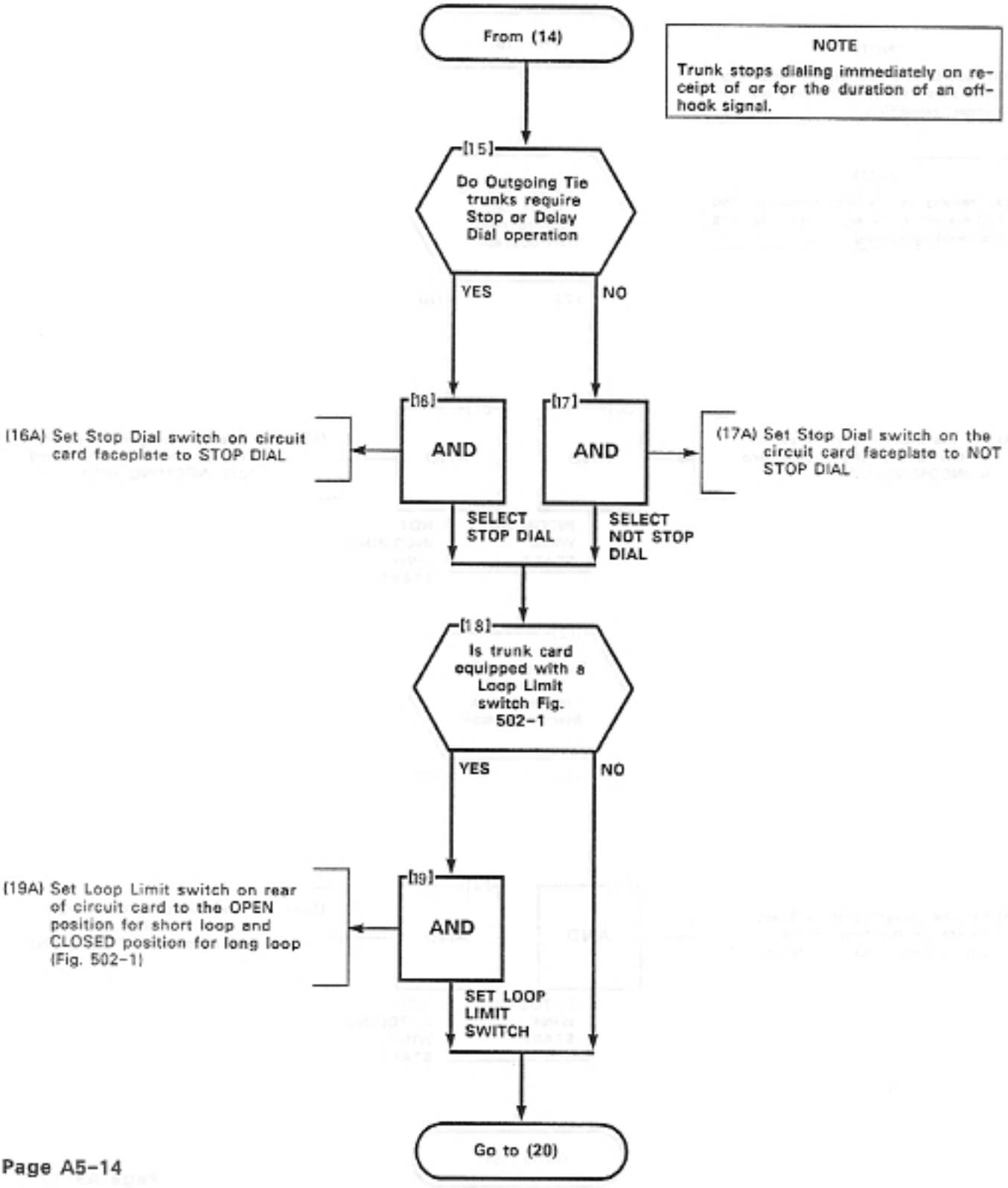

SET E&M/TIE TRUNK OPTION SWITCHES
MAP200-502
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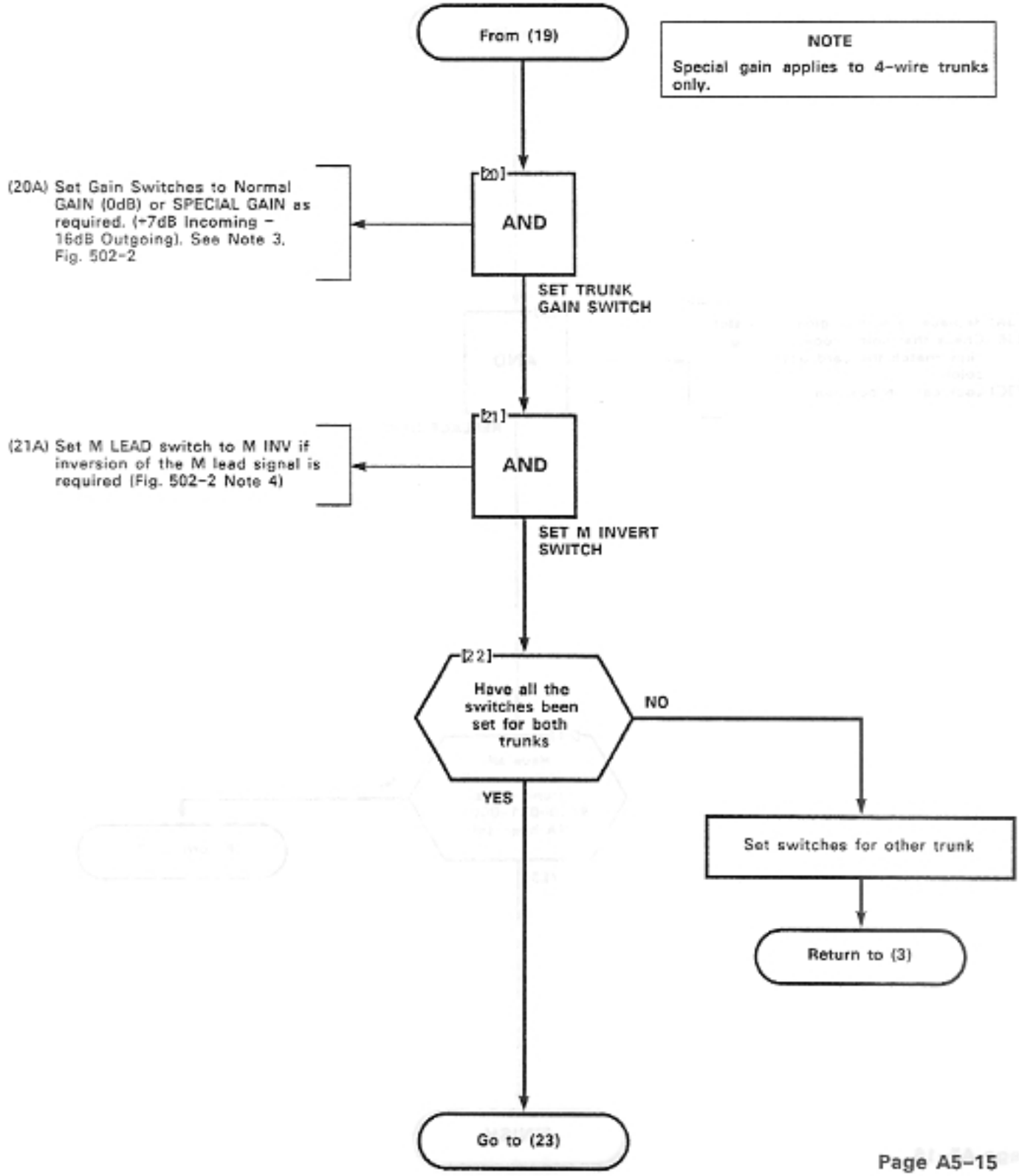

SET E&M/TIE TRUNK OPTION SWITCHES
MAP200- 502
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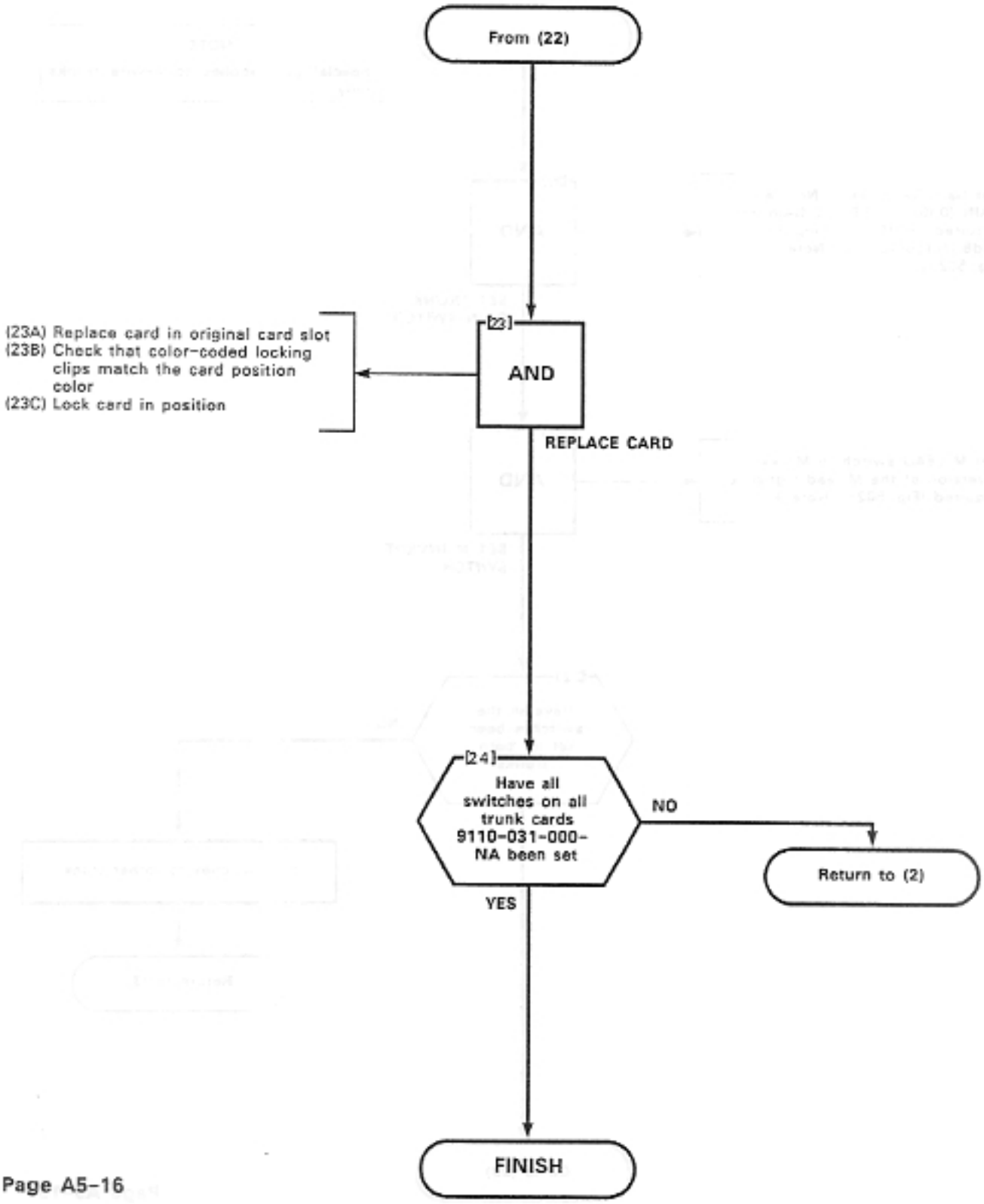
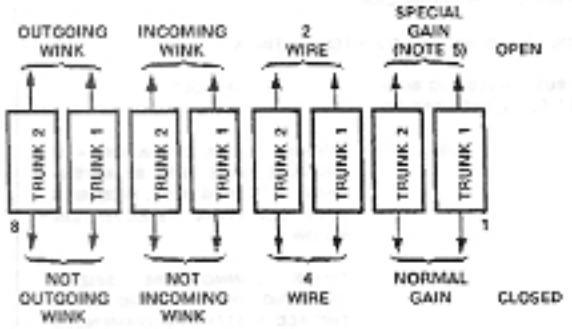
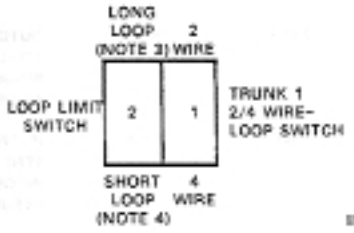
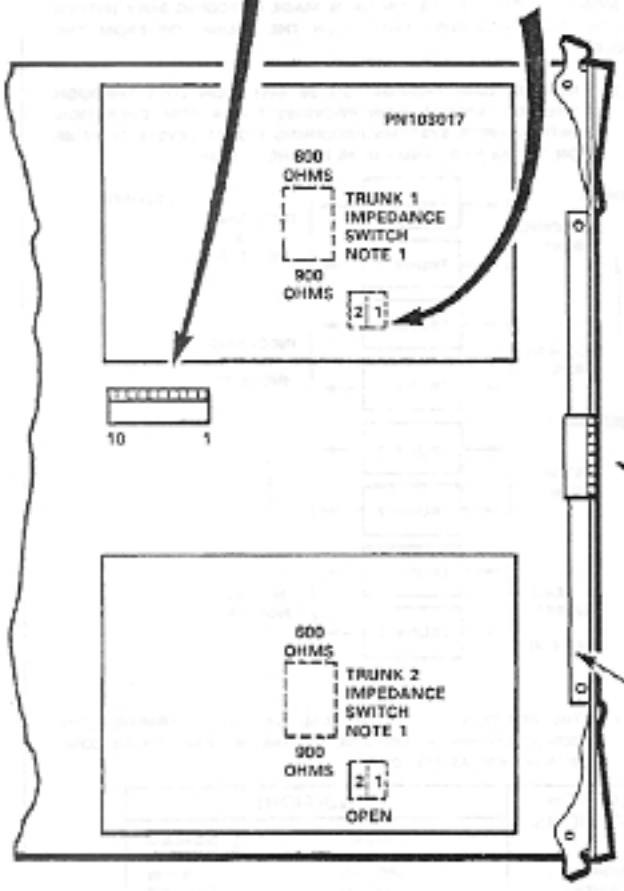








NOTE 1: TRUNK IMPEDANCE SWITCHES ARE LOCATED ON THE REAR OF THE FACE OF THE TRUNK CARD.

NOTE 2: OUTGOING/INCOMING SWITCH SETTINGS

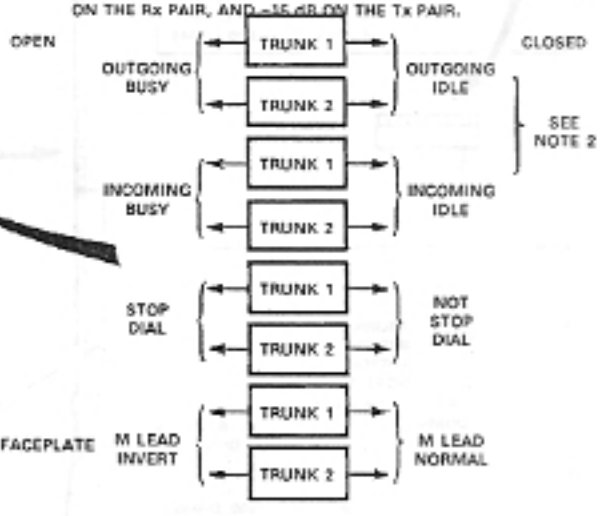
OUTGOING BUSY SWITCH SET TO	INCOMING BUSY SWITCH SET TO	RESULT
IDLE	BUSY	NORMAL TRUNK OPERATION – IF TRUNK IS MADE BUSY BY ATTENDANT, OUTGOING BUSY, INCOMING BUSY CONDITION RESULTS. SEE BELOW.
BUSY	BUSY	TRUNK CANNOT BE SEIZED, INCOMING OR OUTGOING FROM THE ACD SYSTEM. RECOMMENDED SETTING IF TRUNK IS NOT CONNECTED TO TRUNK CIRCUIT.
BUSY	IDLE	OUTGOING CALLS RECEIVE BUSY TONE. INCOMING CALLS RECEIVE RINGING TONE BUT CANNOT BE ANSWERED.
IDLE	IDLE	IF TRUNK IS MADE BUSY BY ATTENDANT, OUTGOING BUSY, INCOMING IDLE CONDITION RESULTS. SEE BELOW.

INCOMING BUSY SWITCH, WHEN OPERATED, WILL PROVIDE AN OUTGOING SEIZE SIGNAL WHENEVER THE TRUNK IS MADE OUTGOING BUSY (EITHER FROM THE OUTGOING BUSY SWITCH ON THE TRUNK, OR FROM THE CONSOLE).

NOTE 3: LONG LOOP SETTING AT LOOP LIMIT SWITCH RESULTS IN 10 OHM RESISTANCE IN SERIES WITH M LEAD

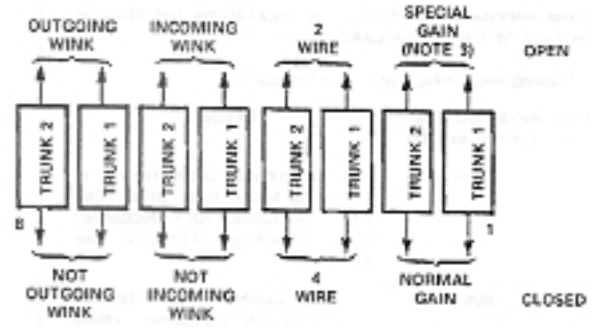
NOTE 4: SHORT LOOP SETTING OF LOOP LIMIT SWITCH RESULTS IN 110 OHM RESISTANCE IN SERIES WITH M LEAD (ONLY IN OLD SERIES CARDS)

NOTE 5: NORMAL GAIN PROVIDES 0.5 dB INSERTION LOSS THROUGH THE ACD. SPECIAL GAIN PROVIDES FOR 4-WIRE OPERATION WITH CARRIER SYSTEMS REQUIRING SIGNAL LEVELS OF +7 dB ON THE Rx PAIR, AND –15 dB ON THE Tx PAIR.



X186R2

Fig. 502-1



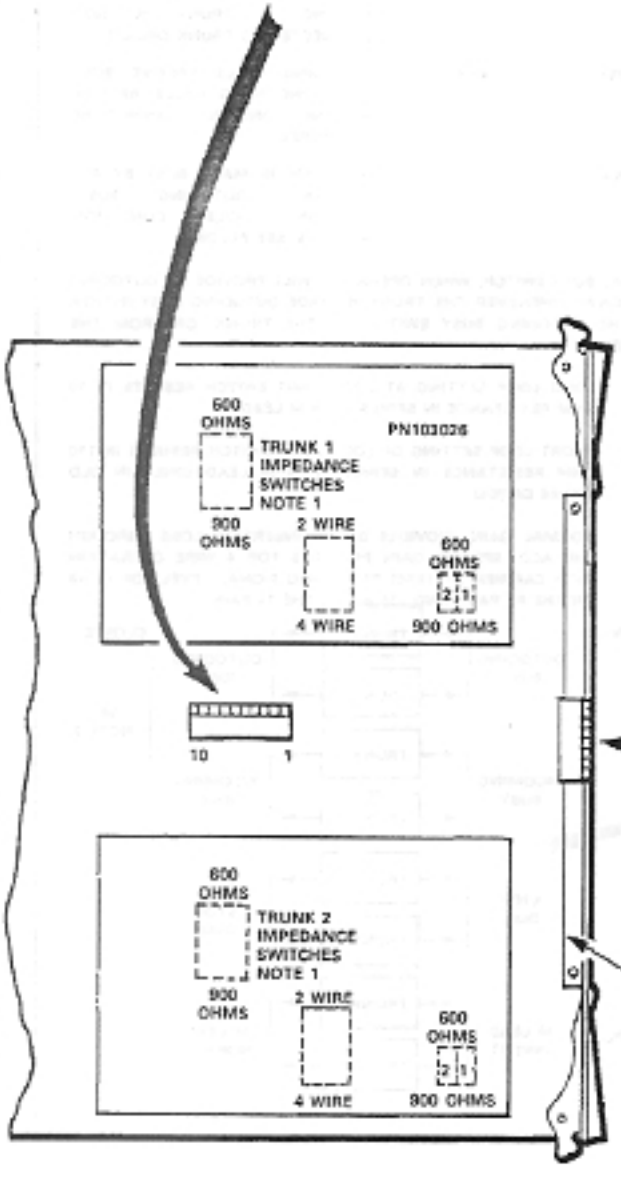
NOTE 1: TRUNK IMPEDANCE SWITCHES ARE LOCATED ON THE REAR FACE OF THE TRUNK CARD.

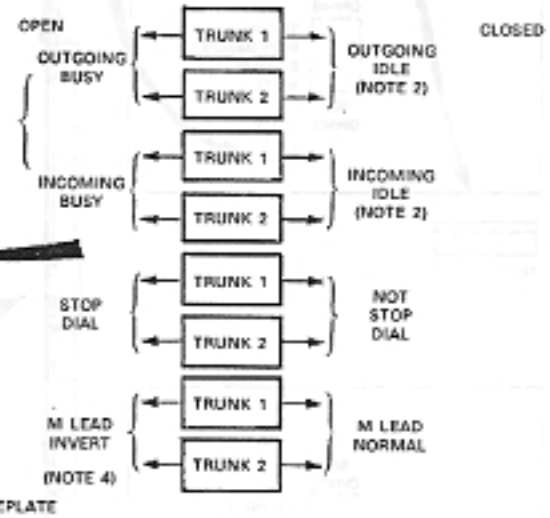
NOTE 2: OUTGOING/INCOMING SWITCH SETTINGS

OUTGOING BUSY SWITCH SET TO	INCOMING BUSY SWITCH SET TO	RESULT
IDLE	BUSY	NORMAL TRUNK OPERATION – IF TRUNK IS MADE BUSY BY ATTENDANT, OUTGOING BUSY, INCOMING BUSY CONDITION RESULTS. SEE BELOW.
BUSY	BUSY	TRUNK CANNOT BE SEIZED, INCOMING OR OUTGOING FROM THE ACD SYSTEM. RECOMMENDED SETTING IF TRUNK IS NOT CONNECTED TO TRUNK CIRCUIT.
BUSY	IDLE	OUTGOING CALLS RECEIVE BUSY TONE. INCOMING CALLS RECEIVE RINGING TONE BUT CANNOT BE ANSWERED.
IDLE	IDLE	IF TRUNK IS MADE BUSY BY ATTENDANT, OUTGOING BUSY, INCOMING IDLE CONDITION RESULTS. SEE BELOW.

INCOMING BUSY SWITCH, WHEN OPERATED, WILL PROVIDE AN OUTGOING SEIZE SIGNAL WHENEVER THE TRUNK IS MADE OUTGOING BUSY (EITHER FROM THE OUTGOING BUSY SWITCH ON THE TRUNK, OR FROM THE CONSOLE).

NOTE 3: NORMAL GAIN PROVIDES 0.5 dB INSERTION LOSS THROUGH THE ACD. SPECIAL GAIN PROVIDES FOR 4-WIRE OPERATION WITH CARRIER SYSTEMS REQUIRING SIGNAL LEVELS OF +7 dB ON THE Rx PAIR, AND −16 dB ON THE Tx PAIR.





NOTE 4: THE POSITION OF THE M LEAD SWITCH DETERMINES THE CONDITION WHICH APPEARS ON THE M LEAD. THESE CONDITIONS ARE AS FOLLOWS:

SWITCH POSITIONS	CONDITIONS	
	IDLE	SEIZED
NORMAL	GROUND	− 48 Vdc
INVERT	− 48 Vdc	GROUND

X523R3

Fig. 502-2 E/M 9110-013-000

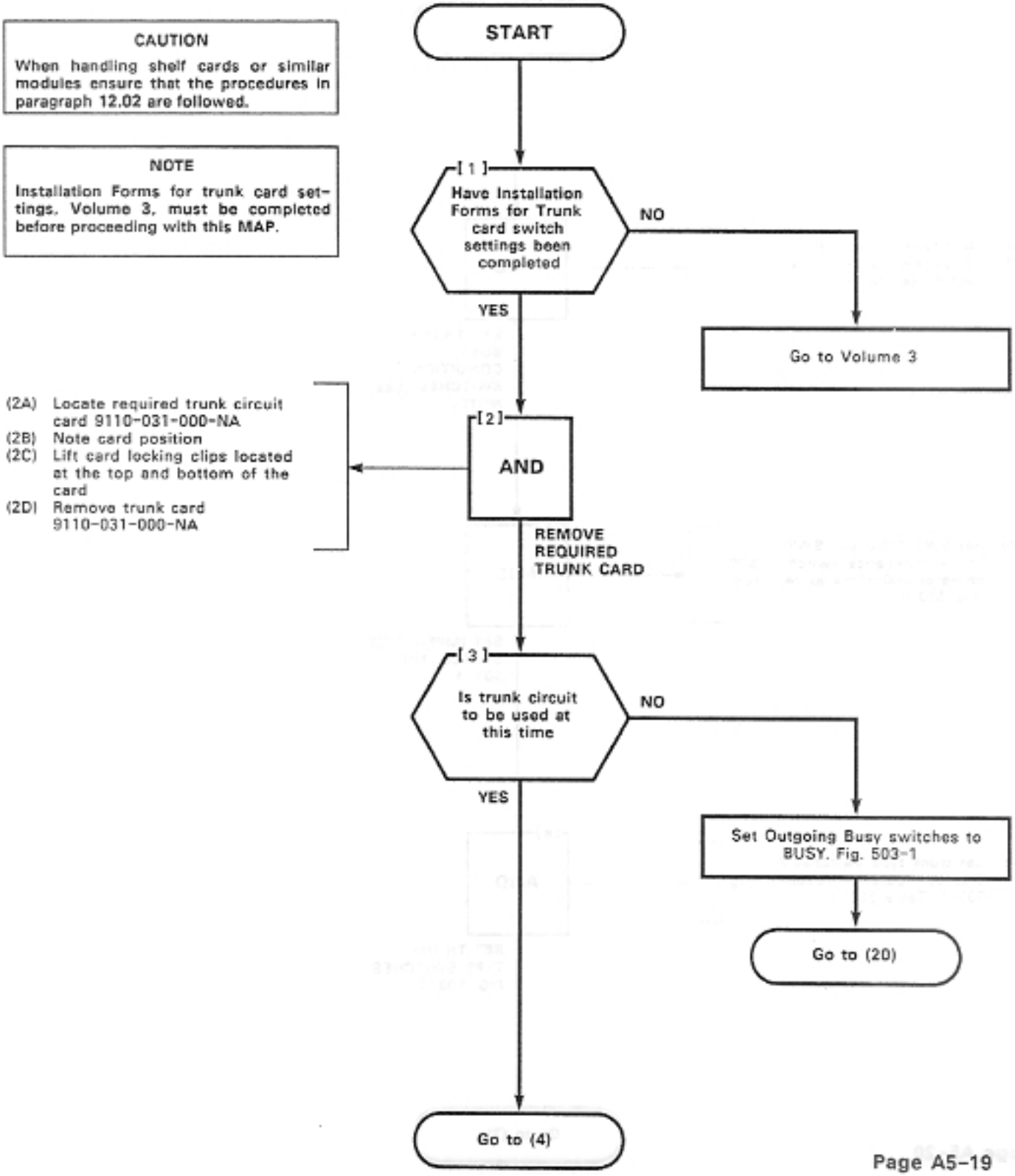
SET DID/TIE TRUNK OPTION SWITCHES
MAP200- 503
Issue 1, September 1983
Sheet 1 of 7

CAUTION

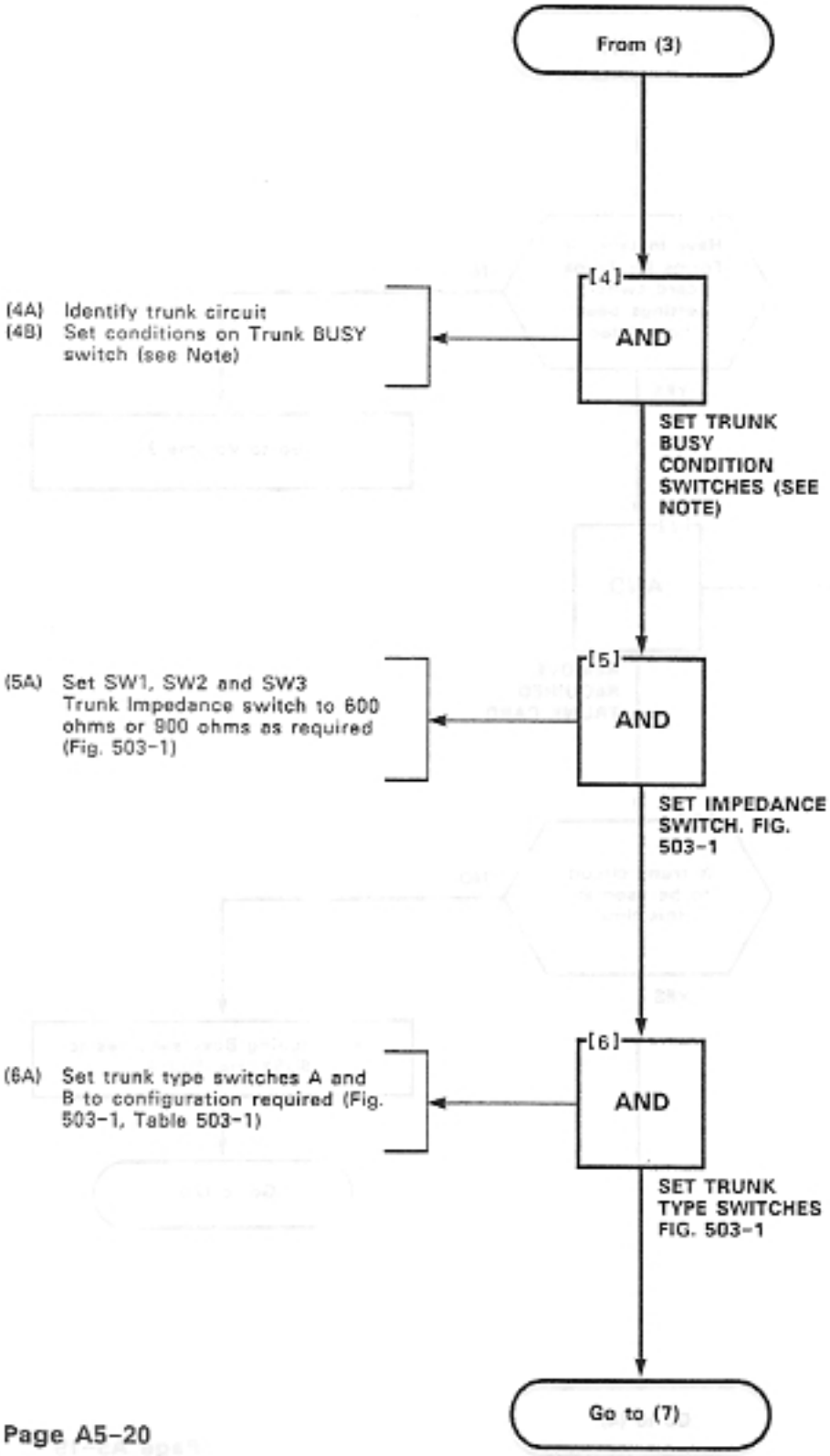
When handling shelf cards or similar modules ensure that the procedures in paragraph 12.02 are followed.

NOTE

Installation Forms for trunk card settings, Volume 3, must be completed before proceeding with this MAP.



SET DID/TIE TRUNK OPTION SWITCHES
MAP200- 503
Issue 1, September 1983
Sheet 2 of 7



SET DID/TIE TRUNK OPTION SWITCHES
MAP200-503
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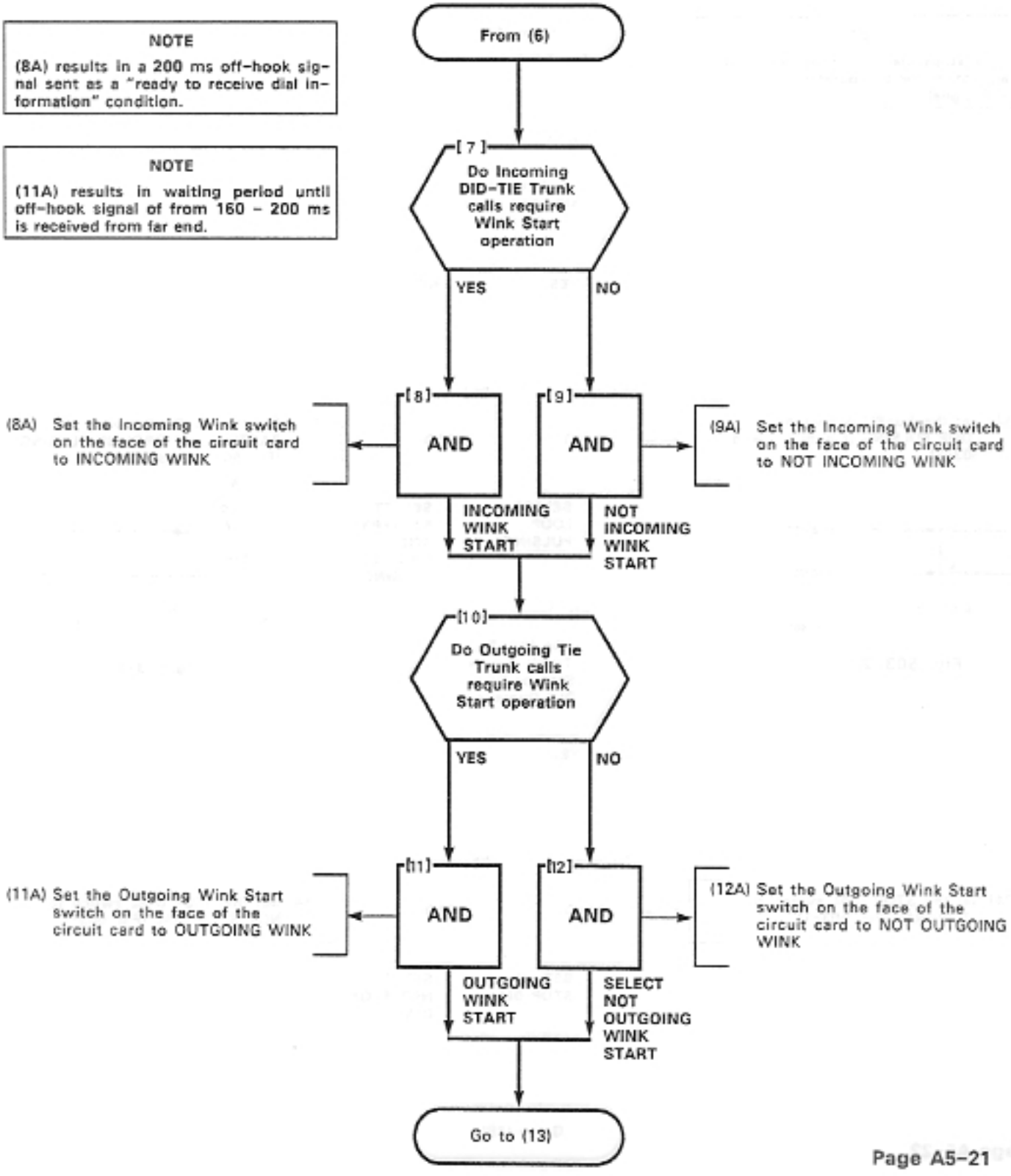
Sheet 3 of 7



SET DID/TIE TRUNK OPTION SWITCHES
MAP200- 503
Issue 1, September 1983
Sheet 4 of 7

NOTE

Trunk stops dialing immediately on receipt of or for the duration of an off-hook signal.

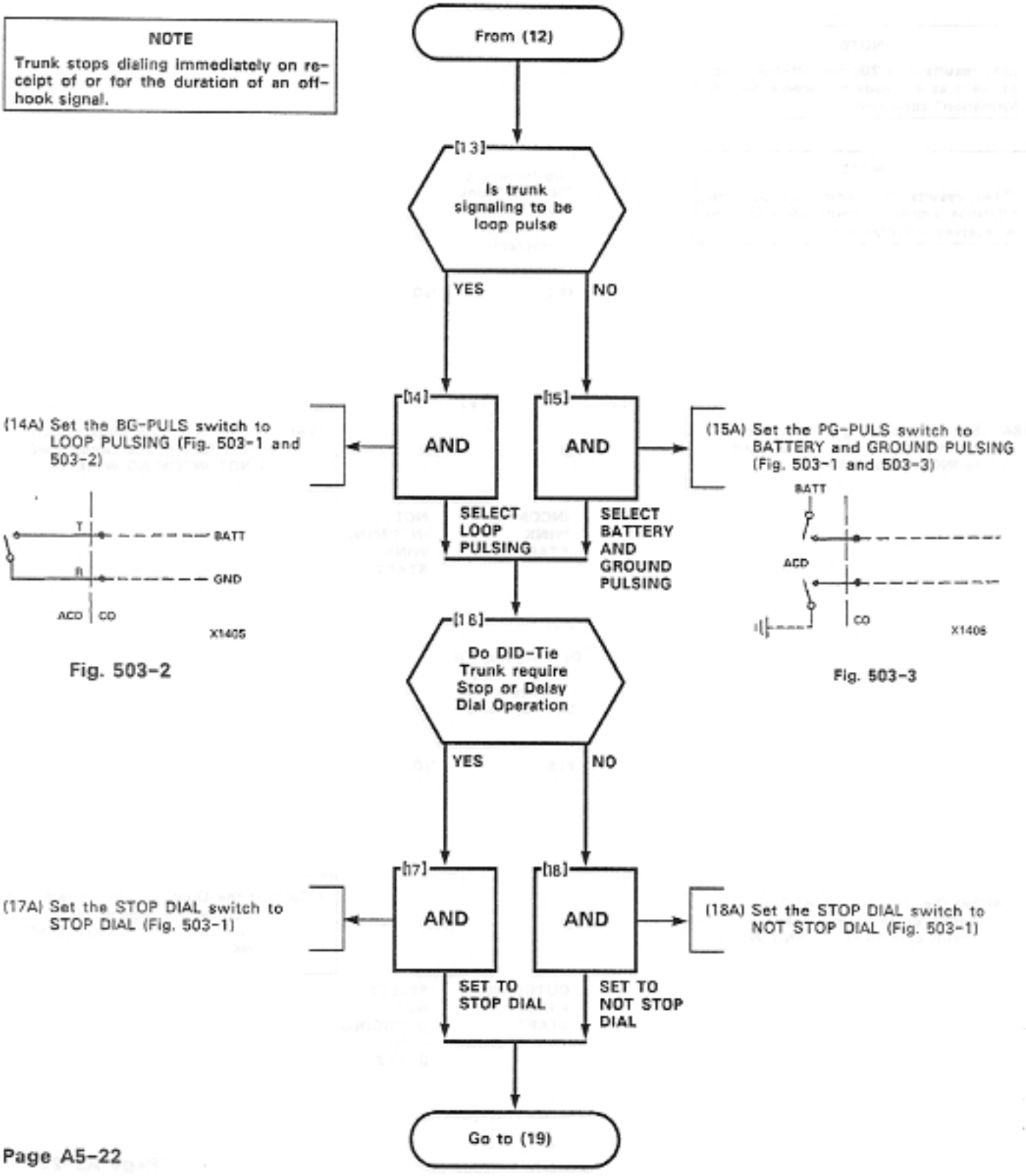
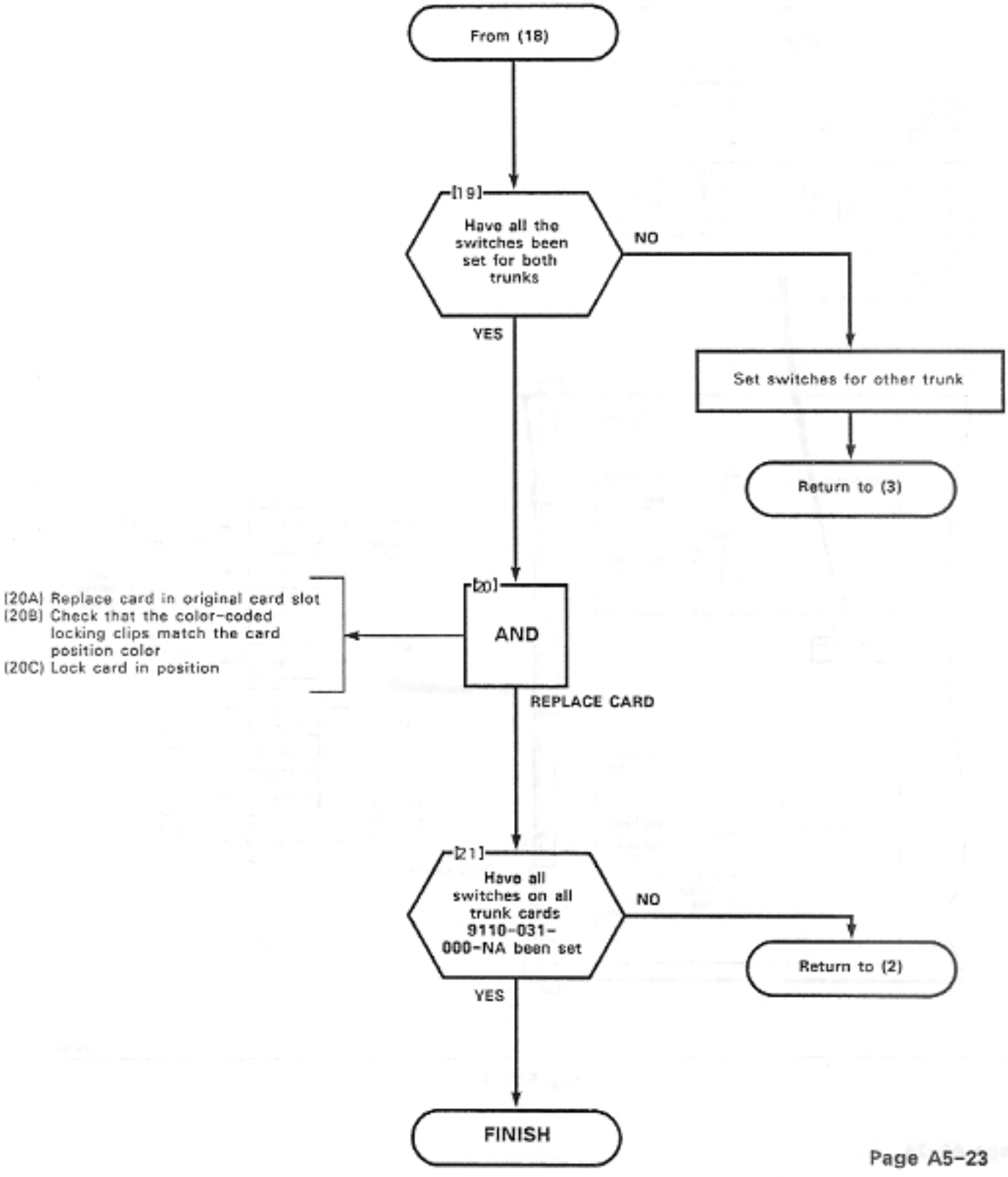


Fig. 503-2

Fig. 503-3

SET DID/TIE TRUNK OPTION SWITCHES
MAP200-503
Issue 1, September 1983
Sheet 5 of 7



TRUNK TYPE TABLE

TRUNK TYPE	SWITCH A	SWITCH B
DID TRUNK	CLOSED	CLOSED
LOOP TIE TRUNK	CLOSED	OPEN
INCOMING DIAL – OUTGOING AUTO	OPEN	CLOSED
NOT USED	OPEN	OPEN

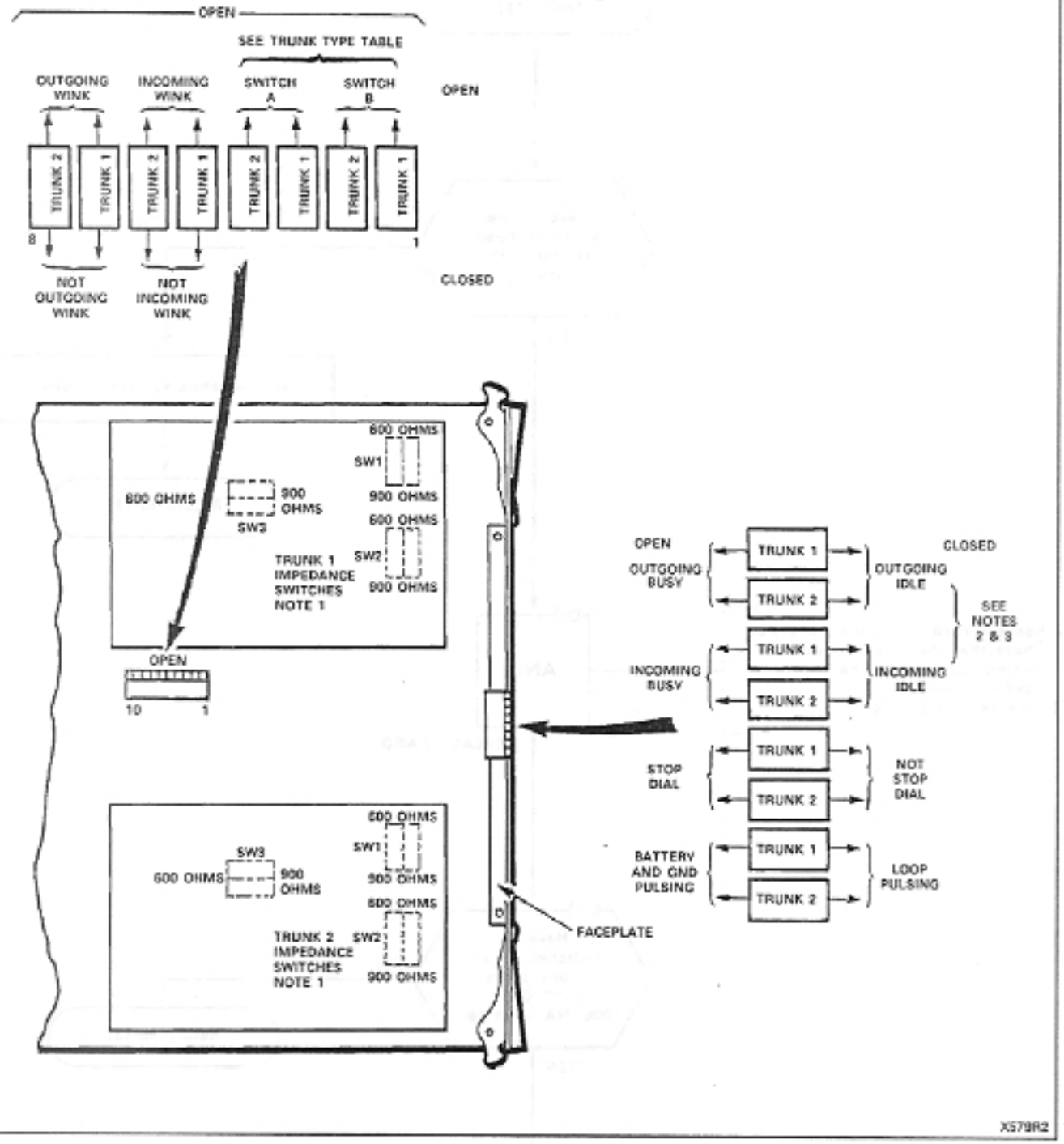


Fig. 503-1

SET DID/TIE TRUNK OPTION SWITCHES
MAP200- 503
Issue 1, September 1983
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NOTES

1. TRUNK IMPEDANCE SWITCHES ARE LOCATED ON THE REAR FACE OF THE TRUNK CARD.

TRUNK BUSY SWITCHES

2. OUTGOING BUSY SWITCHES (1 PER TRUNK) CAN BE SET FOR EITHER OF THE FOLLOWING CONDITIONS:
IDLE SETTING - NORMAL TRUNK OPERATION
BUSY SETTING - TRUNK CANNOT BE SEIZED FOR OUTGOING CALL

3. THE "OUTGOING BUSY" CONDITION MAY BE SET EITHER BY THE OUTGOING BUSY SWITCH (NOTE 2), OR BY THE CONSOLE "TRUNK BUSY OUT" FUNCTION. WHEN THIS CONDITION IS IN EFFECT THE INCOMING BUSY SWITCH AFFECTS THE TRUNK CONDITION AS FOLLOWS:
IDLE SETTING - NO ANSWER WILL BE GIVEN TO INCOMING TRUNK CALLS
BUSY SETTING - A PERMANENT SEIZURE CONDITION IS GIVEN TOWARDS THE TRUNK

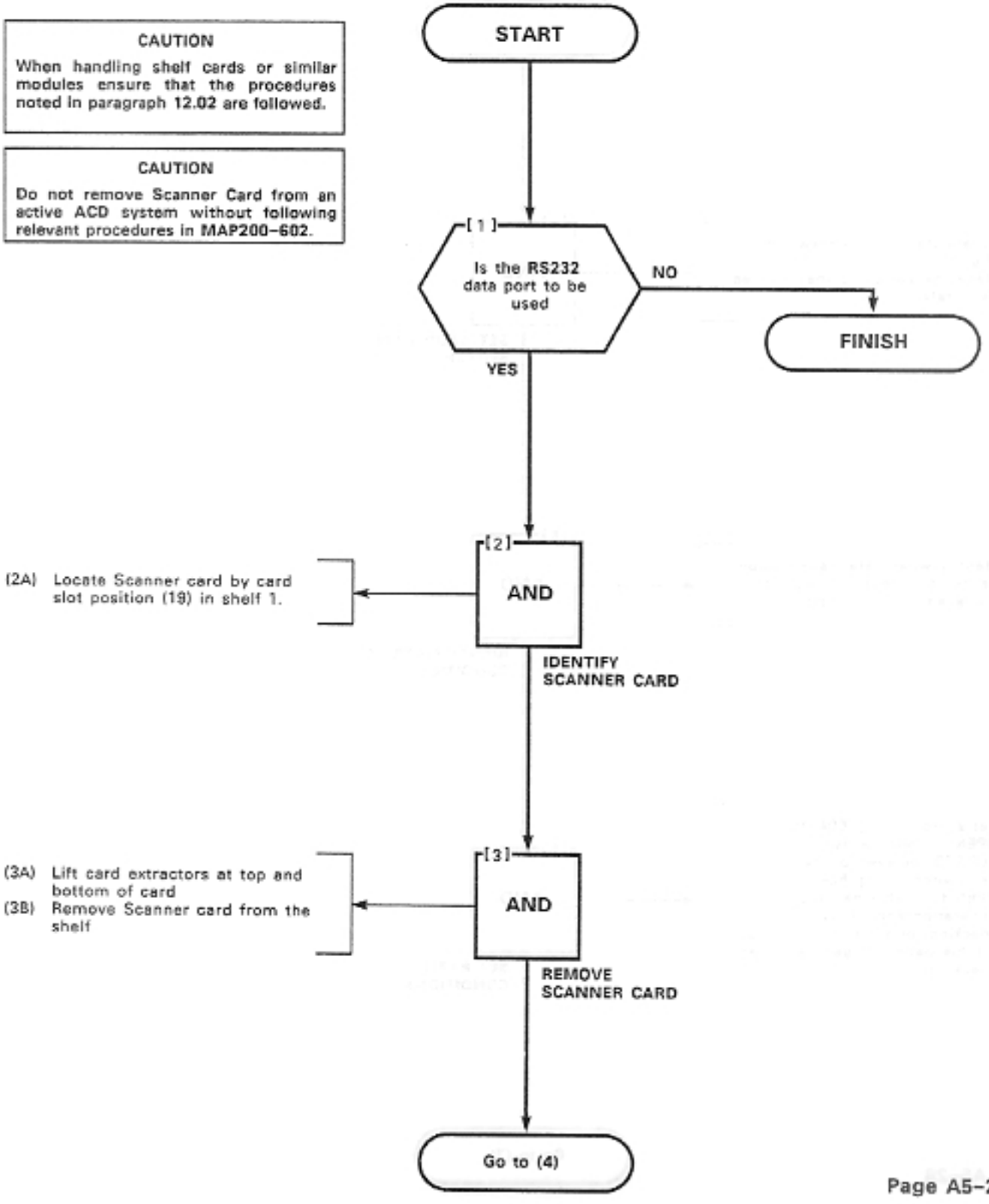
SET SCANNER CARD SWITCHES
MAP200-504
Issue 1, September 1983
Sheet 1 of 5

CAUTION

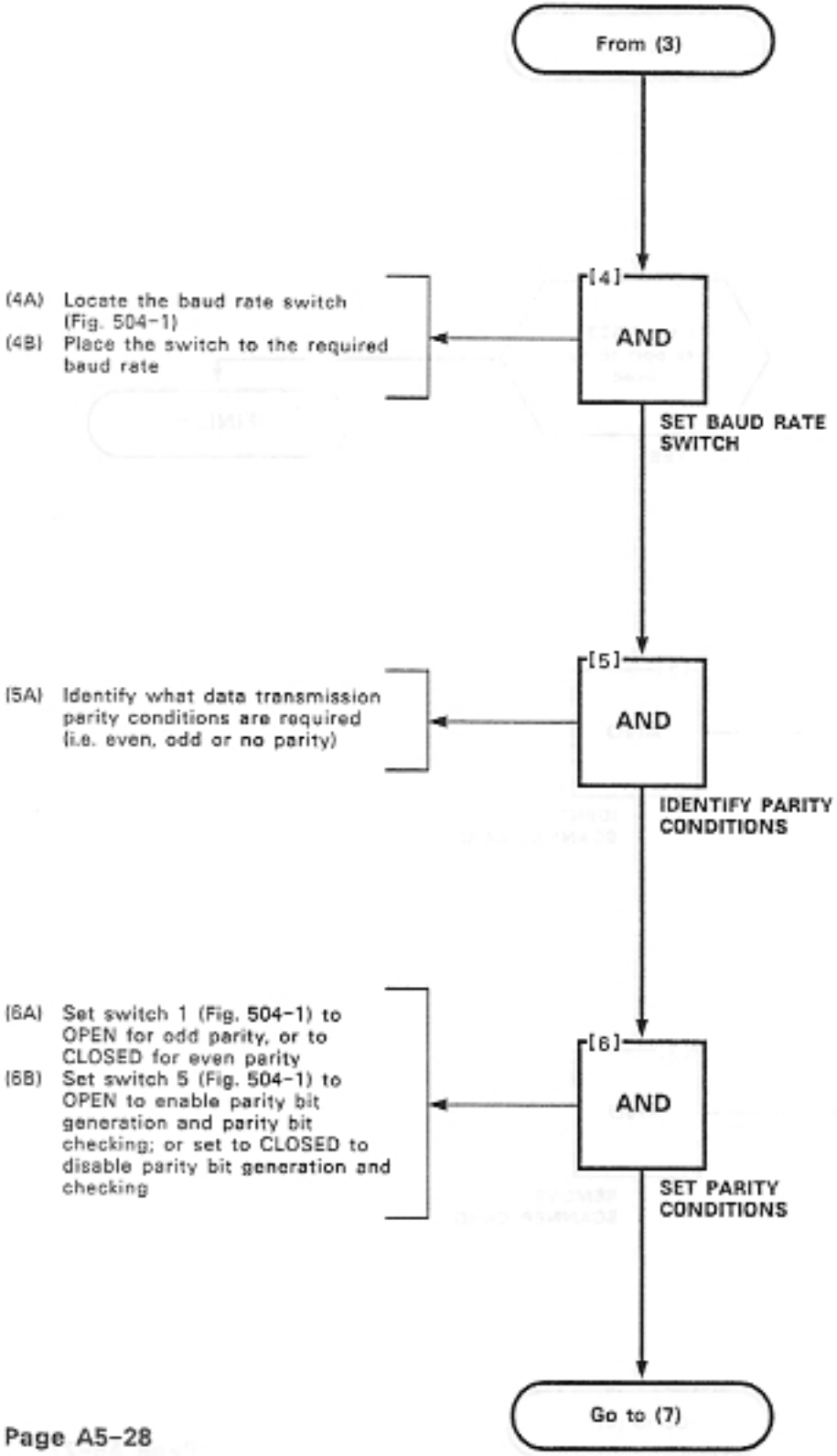
When handling shelf cards or similar modules ensure that the procedures noted in paragraph **12.02** are followed.

CAUTION

Do not remove Scanner Card from an active ACD system without following relevant procedures in **MAP200-602**.



SET SCANNER CARD SWITCHES
MAP200- 504
Issue 1, September 1983
Sheet 2 of 5



SET SCANNER CARD SWITCHES
MAP200-504
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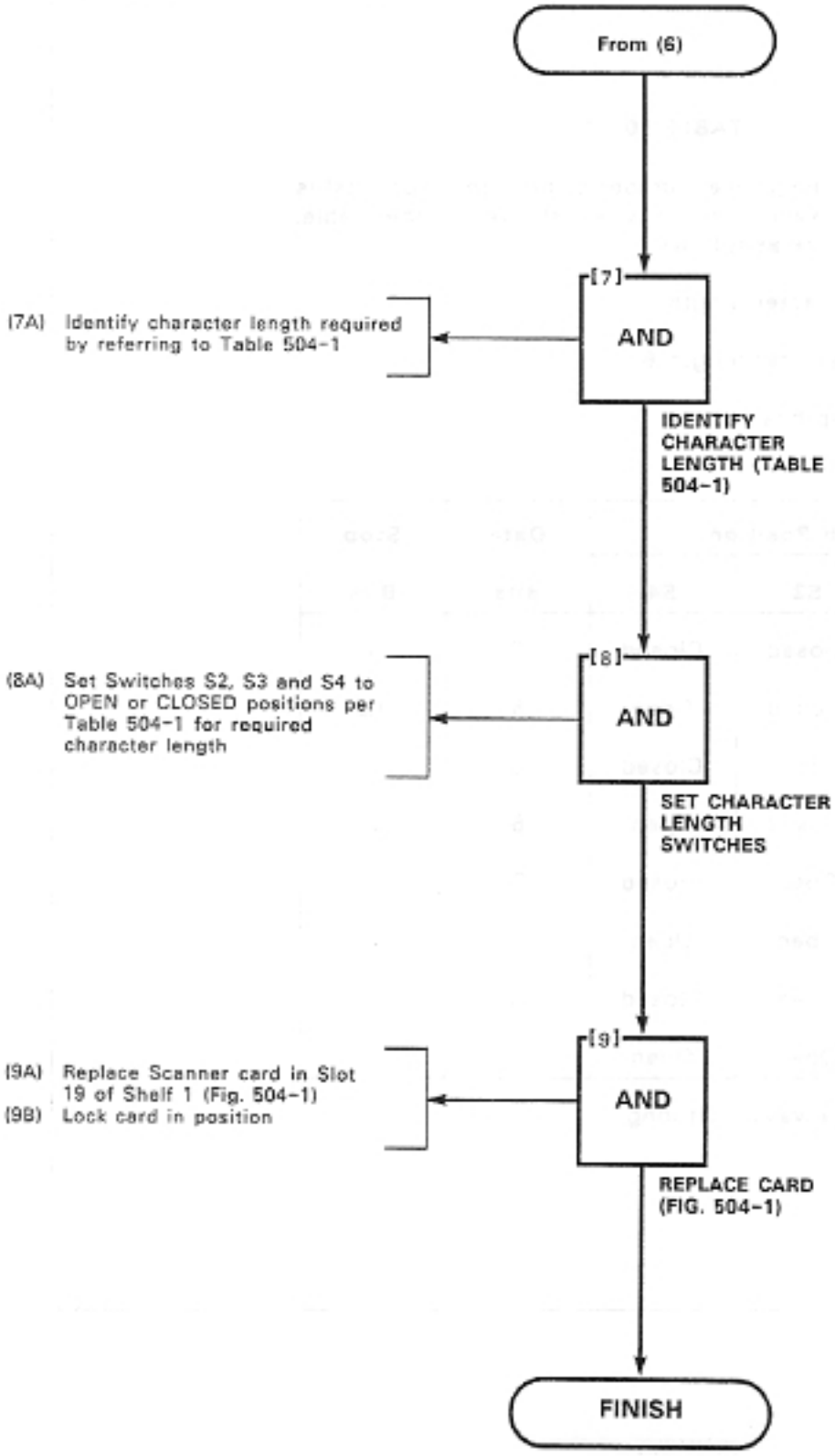

SET SCANNER CARD SWITCHES
MAP200- 504
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TABLE 504-1

Data Character Length (i.e. number of data and stop bits) is determined by switch settings as shown in the Table. These switches are as follows:

S2 - Character length A

S3 - Character length B

S4 - Stop bits

Switch Position			Data	Stop
S2	S3	S4	Bits	Bits
Closed	Closed	Closed	5	1
Closed	Closed	Open	5	1.5
Open	Closed	Closed	6	1
Open	Closed	Open	6	2
Closed	Open	Closed	7	1
Closed	Open	Open	7	2
Open	Open	Closed	8	1
Open	Open	Open	8	2

The Start Bit is always 1 bit long.

SET SCANNER CARD SWITCHES
MAP200-504
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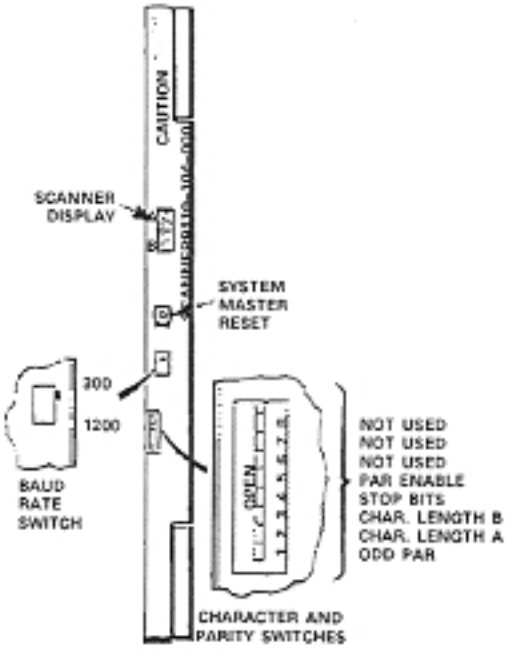

Fig. 504-1 Scanner Card Type 9110-104-000

SET RAM/COS SWITCHES
MAP200-505
Issue 1, September 1983
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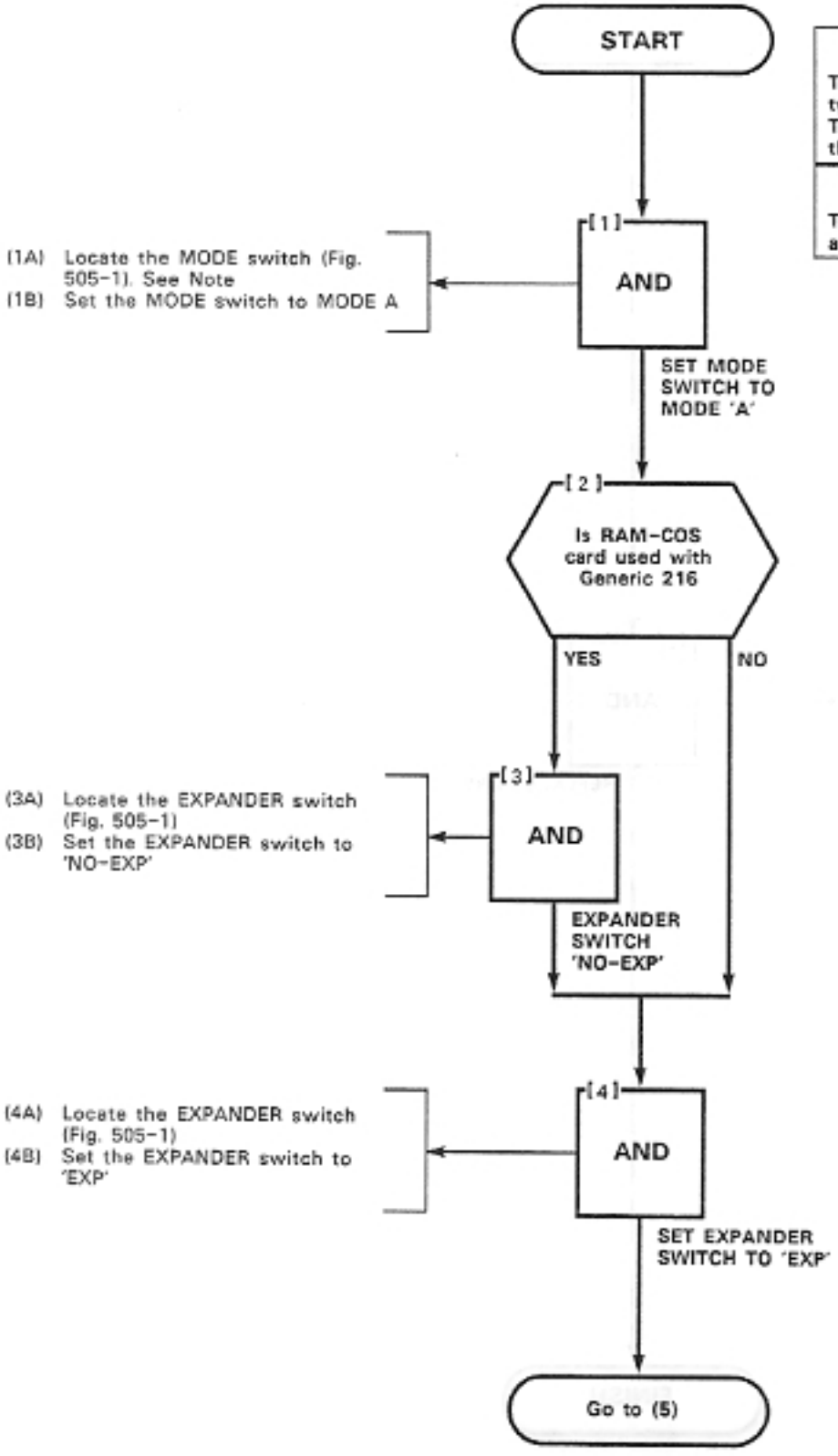
NOTE

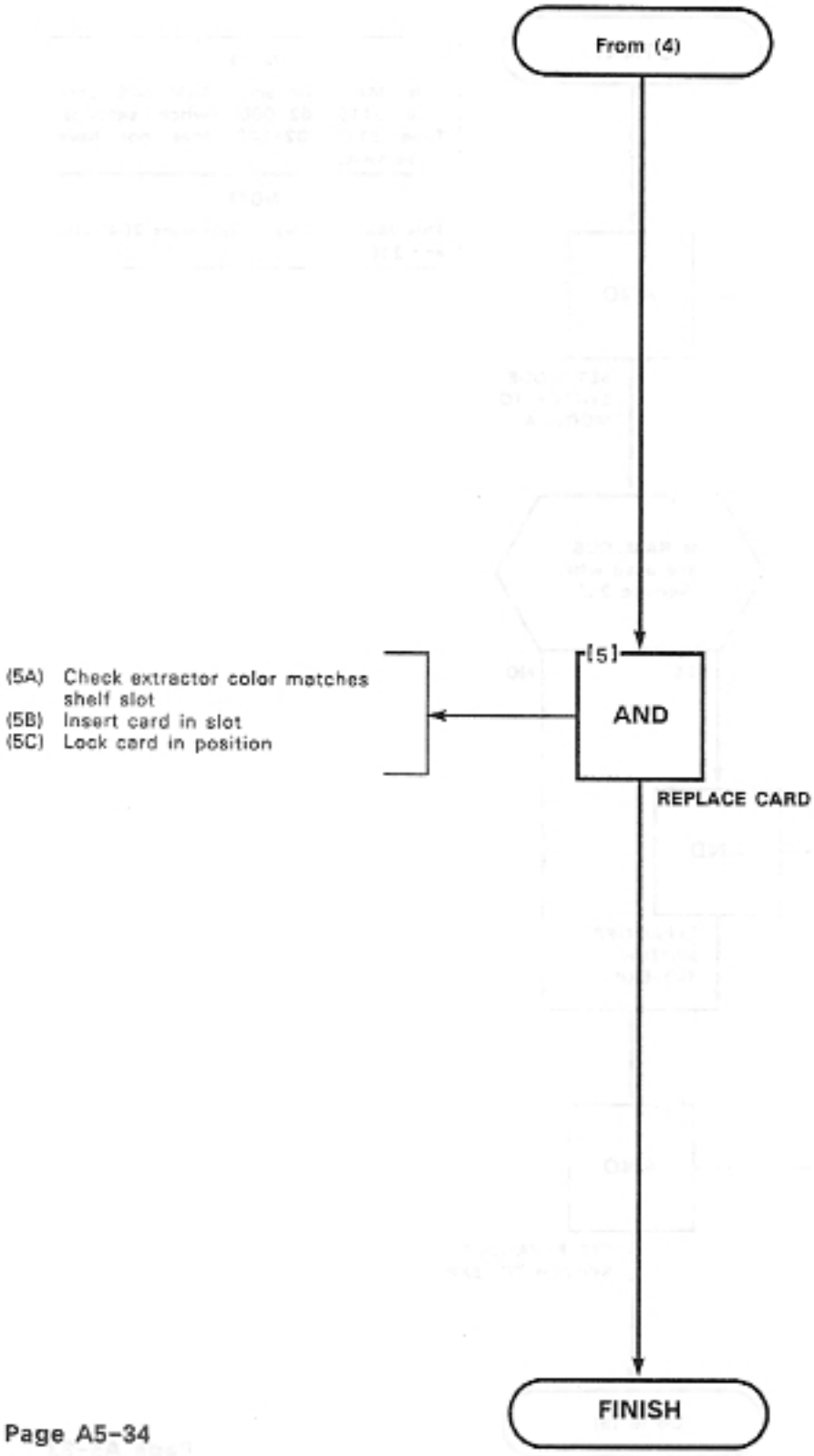
This MAP concerns RAM/COS card type 9110-102-000 switch settings. Type 9110-002-000 does not have these switches.

NOTE

This MAP applies to Generics 204, 205 and 216.



SET RAM/COS SWITCHES
MAP200- 505
Issue 1, September 1983
Sheet 2 of 3



SET RAM/COS SWITCHES
MAP200-505
Issue 1, September 1983
Sheet 3 of 3

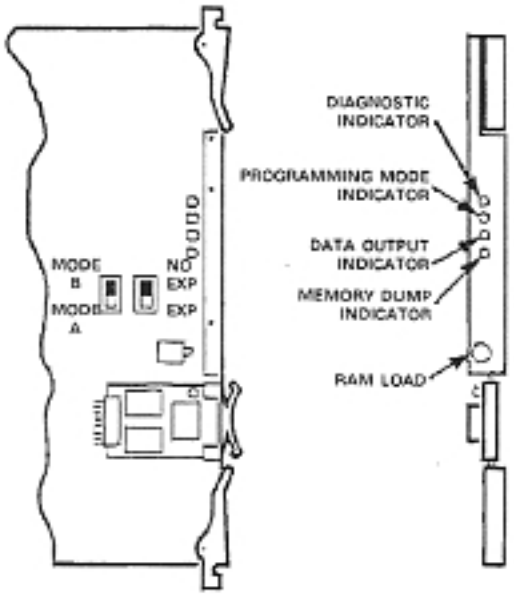


Fig. 505-1 RAM COS Card

SET CO TRUNK SWITCHES (TYPES -211/311)
MAP200-506
Issue 1, September 1983
Sheet 1 of 8

CAUTION

When handling shelf cards or similar modules ensure that the procedures noted in paragraph 12.02 are followed.

NOTE

Use MAP200-501 when setting switches on Trunk Card Types 9110-011-000 or -111-000.

NOTE

Installation Forms for trunk card settings. Volume 3 must be completed before proceeding with this MAP.

START

[1] Have Installation Forms for Trunk Card switch settings been completed

NO → Go to Volume 3

YES

[2] AND

(2A) Identify trunk circuit by card position type and unit number

IDENTIFY TRUNK CIRCUIT CARD

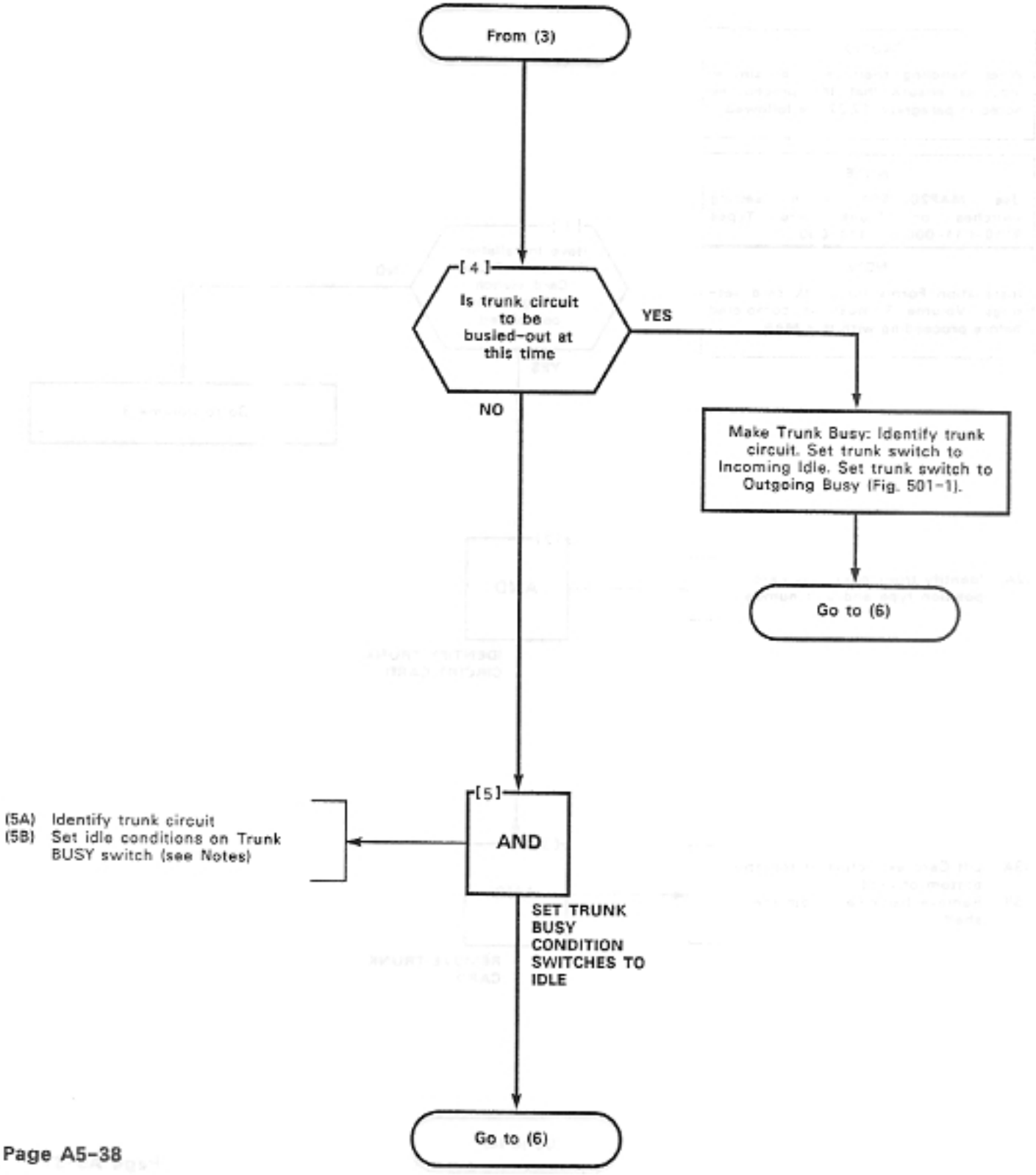
[3] AND

(3A) Lift Card extractors at top and bottom of card
(3B) Remove trunk card from the shelf

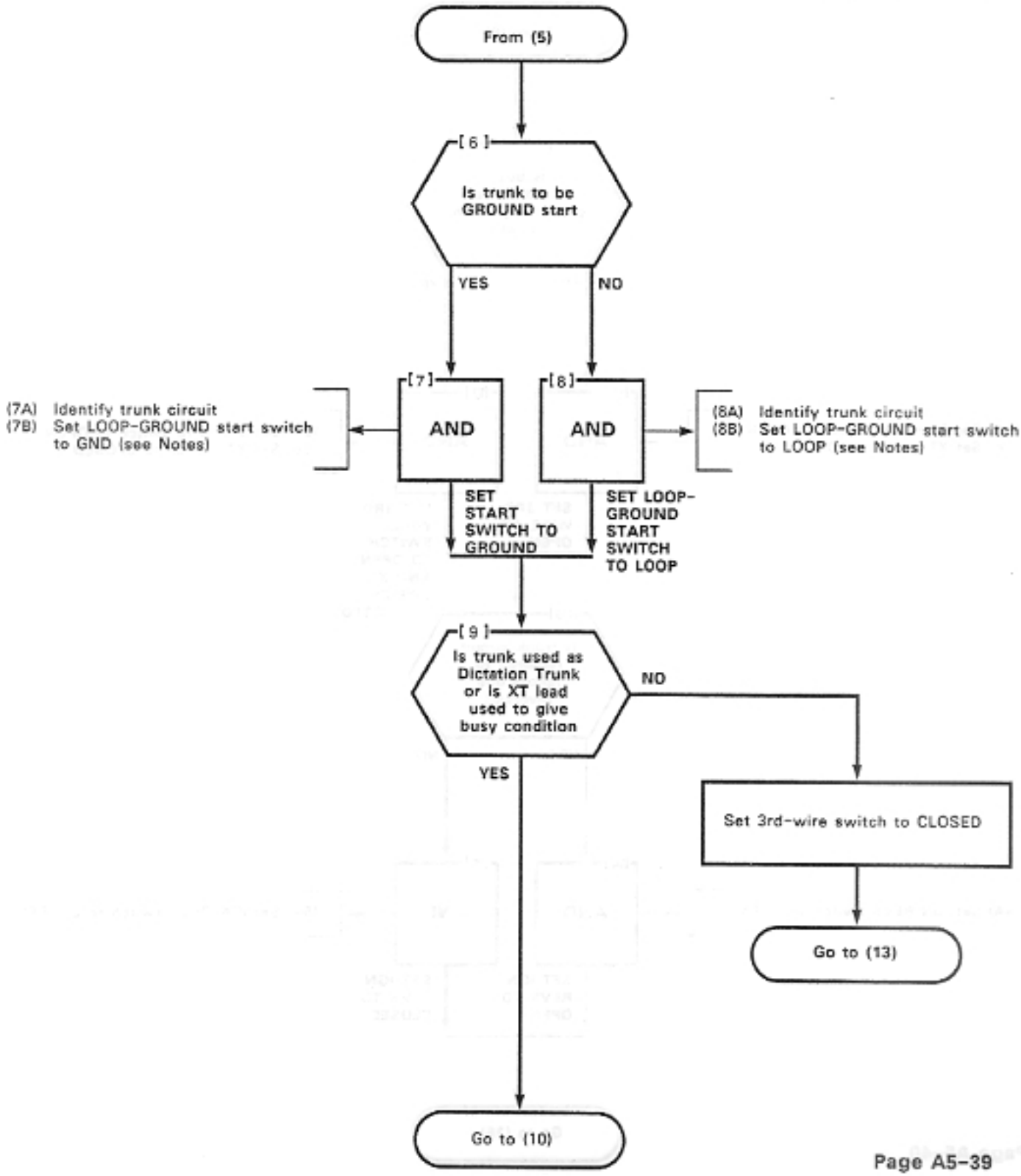
REMOVE TRUNK CARD

Go to (4)

SET CO TRUNK SWITCHES (TYPES -211/311)
MAP200- 506
Issue 1, September 1983
Sheet 2 of 8



SET CO TRUNK SWITCHES (TYPES -211/311)
MAP200- 506
Issue 1, September 1983
Sheet 3 of 8



SET CO TRUNK SWITCHES (TYPES -211/311)
MAP200- 506
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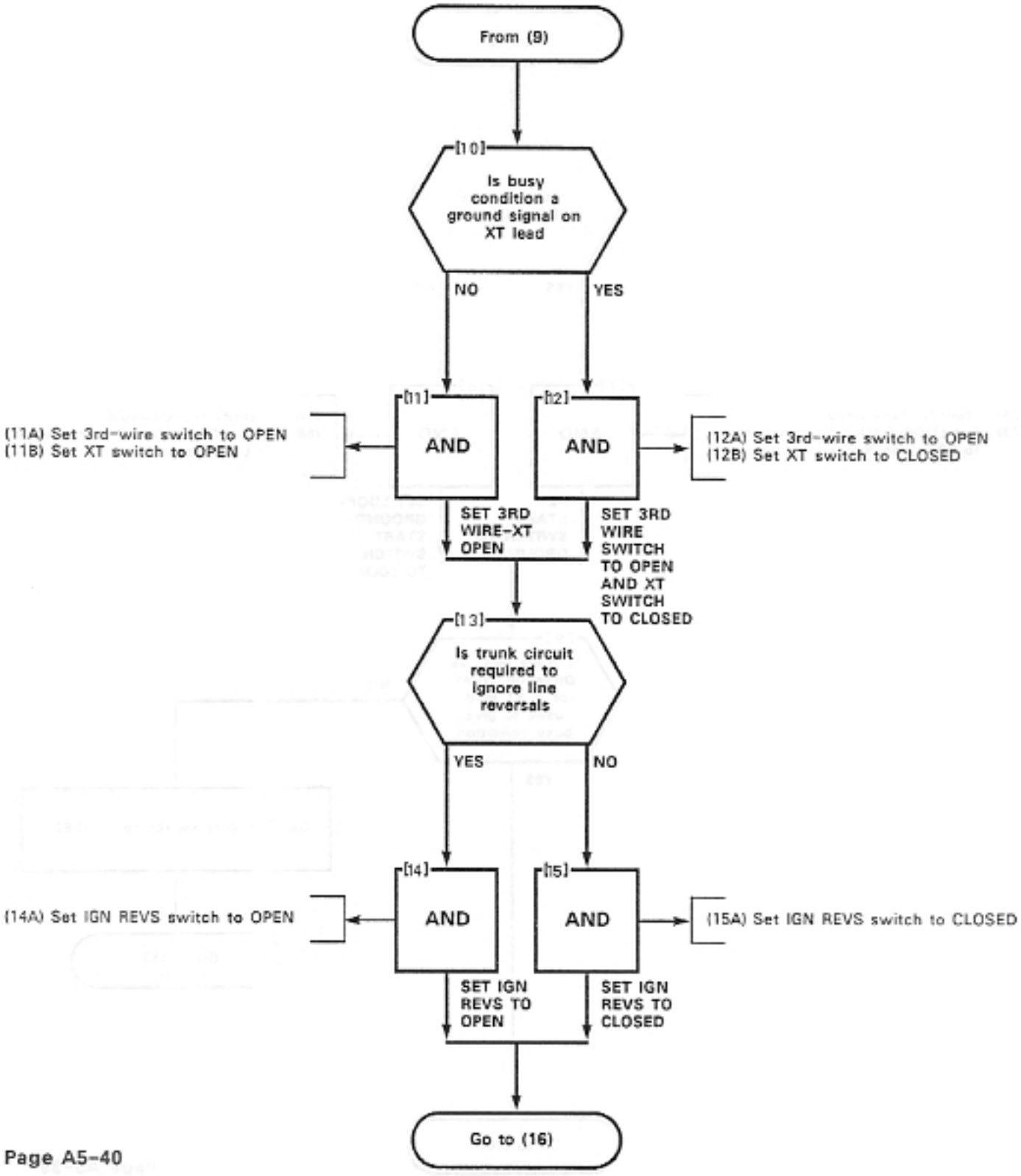
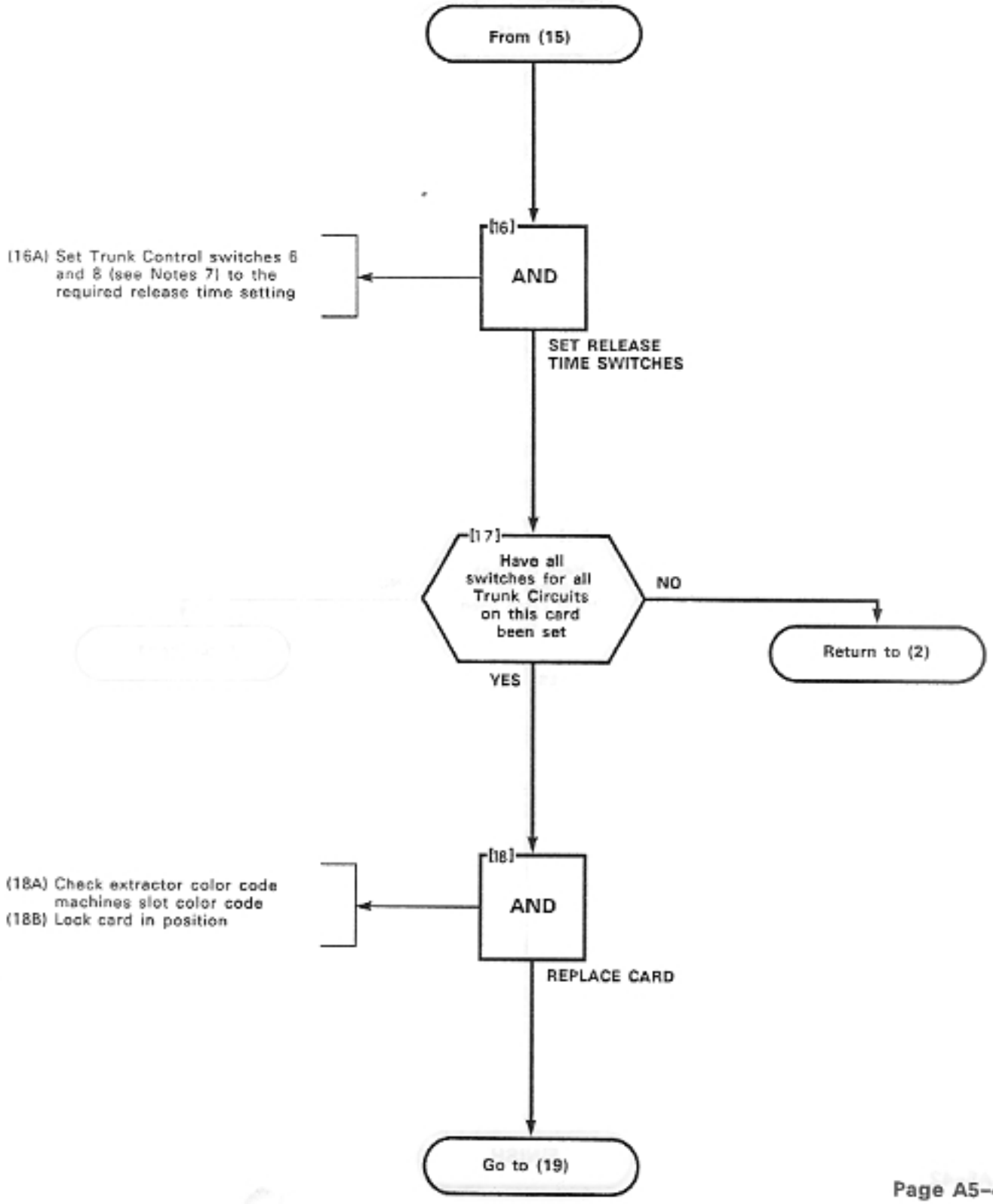
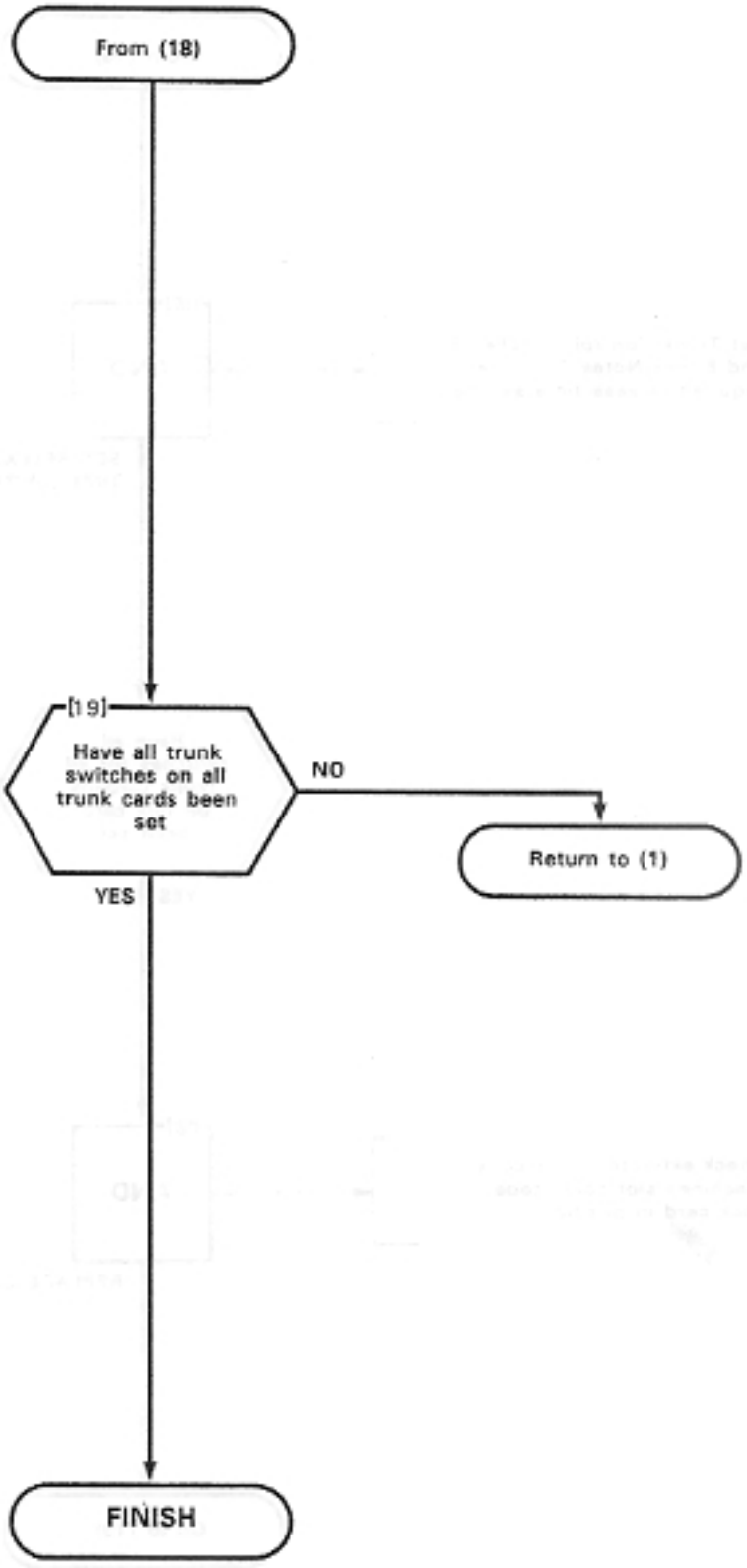
Sheet 4 of 8



SET CO TRUNK SWITCHES (TYPES -211/311)
MAP200-506
Issue 1, September 1983
Sheet 5 of 8



SET CO TRUNK SWITCHES (TYPES -211/311)
MAP200- 506
Issue 1, September 1983
Sheet 6 of 8



SET CO TRUNK SWITCHES (TYPES -211/311)
MAP200-506
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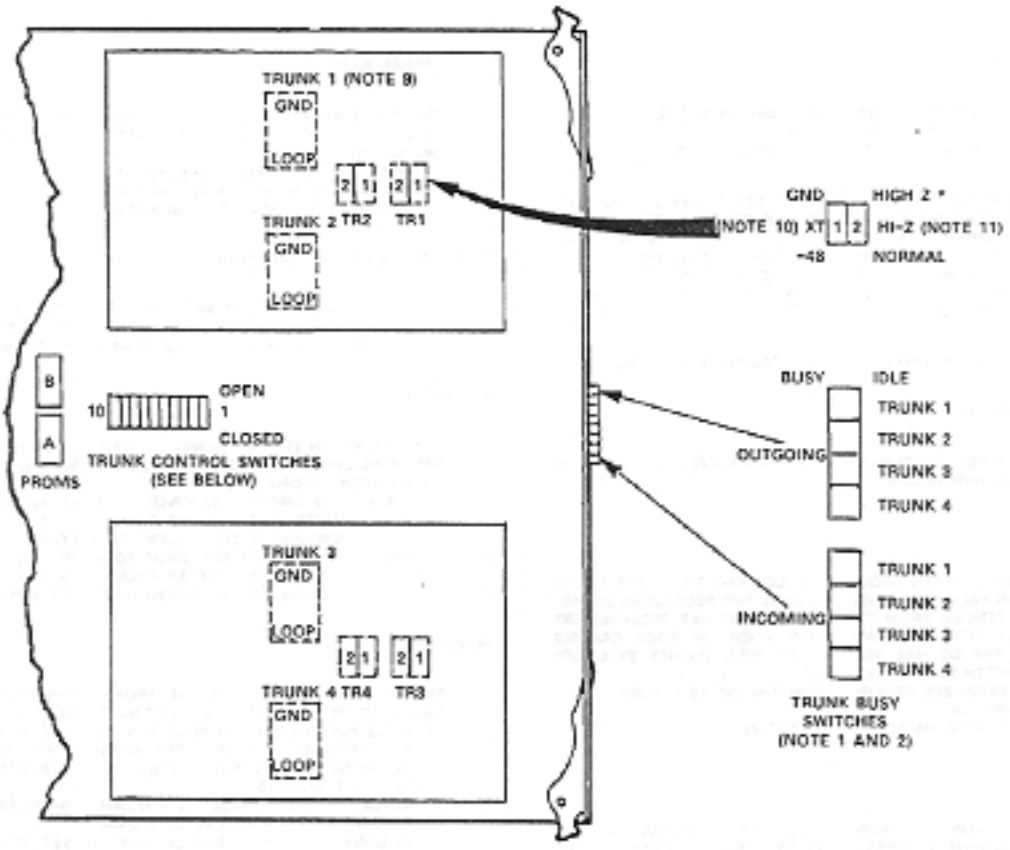
Sheet 7 of 8



TRUNK CONTROL SWITCH FUNCTIONS

SWITCH NO.	FUNCTION	TYPE -211	TYPE -811	NOTES
1	3RD WIRE TRUNK 1	X	X	5
2	3RD WIRE TRUNK 2	X	X	5
3	3RD WIRE TRUNK 3	X	X	5
4	3RD WIRE TRUNK 4	X	X	5
5	IGNORE REVERSALS	X	X	6
6	RELEASE TIME "A"	X	X	7
7	MAKE/BREAK RATIO	-	X	8
8	RELEASE TIME "B"	X	X	7
9	NOT USED	-	-	
10	NOT USED	-	-	

"X" INDICATES THAT FUNCTION STATED IS APPLICABLE FOR THE TYPE 9110-211-000 OR -311-000 TRUNK CARDS: AS NOTED UNDER THE COLUMN HEADINGS.

* IN CANADA THE CO TRUNK CARD HI-Z SWITCH MUST ALWAYS BE SET TO HI-Z

X1266R4

Fig. 506-1 Trunk Card Switch Identification

SET CO TRUNK SWITCHES (TYPES -211/311)
MAP200- 506
Issue 1, September 1983
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NOTES:

TRUNK BUSY SWITCHES

1. OUTGOING BUSY SWITCHES (1 PER TRUNK) CAN BE SET FOR EITHER:
   IDLE - NORMAL TRUNK OPERATION
   BUSY - TRUNK CANNOT BE SEIZED FOR OUTGOING CALL

2. THE "OUTGOING BUSY" CONDITION MAY BE SET EITHER BY THE OUTGOING BUSY SWITCH (NOTE 1), OR BY THE CONSOLE "TRUNK BUSY OUT" FUNCTION. WHEN THIS CONDITION IS IN EFFECT THE INCOMING BUSY SWITCH AFFECTS THE TRUNK CONDITION AS FOLLOWS:
   IDLE - NO ANSWER WILL BE GIVEN TO INCOMING CO CALLS
   BUSY - A PERMANENT SEIZURE CONDITION IS GIVEN TOWARDS THE CO

3. INCOMING BUSY HAS NO EFFECT WHILE OUTGOING BUSY IN NOT SET

TRUNK CONTROL SWITCHES

4. THE TRUNK CONTROL SWITCHES ARE PROGRAMMED TO RESULT IN THE FEATURES SHOWN BELOW.

3RD WIRE SWITCHES

5. THE 3RD WIRE LEAD WHEN REQUIRED IS CONNECTED TO THE CO TO PROVIDE CERTAIN FACILITIES. THESE INCLUDE THE RECORDING OF METER PULSES (EXTENDED FROM THE CO); OR ANOTHER REQUIREMENT MAY BE A BUSY CONDITION WHEN DICTATION OR CODE CALLING EQUIPMENT AT THE CO HAS BEEN TAKEN INTO SERVICE BY OTHER TRUNKS. THE SWITCH SETTING IS EITHER:
   OPEN - RECOGNIZES GROUND FROM THE CO AS A BUSY CONDITION
   CLOSED - 3RD WIRE SWITCH IS INEFFECTIVE

IGNORE REVERSALS

6. IF LINE REVERSALS ON THE TRUNK CIRCUIT ARE REQUIRED TO HAVE NO EFFECT THE IGNORE REVERSALS SWITCH IS SET TO "OPEN". IF LINE REVERSALS ARE TO BE RECOGNIZED THE SWITCH IS SET TO CLOSED.

RELEASE TIME SWITCHES

7. VALID TRUNK RELEASE TIMES ARE RECOGNIZED BY THE FOLLOWING RELEASE TIME SETTINGS FOR PROM TYPE -0004 WITH SWITCHES "A" AND "B":

"A" SETTING	"B" SETTING	RELEASE TIME
OPEN	CLOSED	50 ms
CLOSED	CLOSED	500 ms
OPEN	OPEN	2.5 s
CLOSED	OPEN	INFINITE (NON-RELEASE)

MAKE/BREAK RATIO

8. THE MAKE/BREAK RATIO SWITCH FUNCTION IS PROGRAMMED FOR TYPE 9110-311 ONLY. THE SWITCH SETTINGS RESULT IN THE FOLLOWING RATIOS:
   OPEN - 33/66 (33% MAKE; 66% BREAK)
   CLOSED - 40/60 (40% MAKE; 60% BREAK)
   TYPE 9110-211 IS FIXED AT 40/60 RATIO.

LOOP/GROUND START SWITCHES

9. THE LOOP/GROUND START SWITCHES (1 PER TRUNK) CAN BE SET TO:
   LOOP - USED FOR LOOP-START TYPE TRUNKS
   GROUND- USED FOR GROUND-START TYPE TRUNKS

XT SWITCH

10. THE XT SWITCH (1 PER TRUNK) IS USED IN CONJUNCTION WITH THE 3RD WIRE SWITCH (NOTE 5) AND CAN BE SET TO PROVIDE THE FOLLOWING CONDITIONS:
    -48 V THE CIRCUIT RESPONDS TO A -48 Vdc SIGNAL (E.G. WHEN IT IS A METER PULSE OR A BUSY CONDITION). A GROUND IS EQUIVALENT TO AN OPEN.
    GND THE CIRCUIT RESPONDS TO A GROUND SIGNAL (E.G. WHEN IT IS A METER PULSE OR A BUSY CONDITION). A -48 Vdc SIGNAL IS EQUIVALENT TO OPEN.

HI-Z SWITCH

11. THE HI-Z SWITCH ALLOWS THE PROPER IMPEDANCE ON INCOMING CALLS. TO BE PRESENTED ACCORDING TO REQUIREMENTS. THE TWO SETTINGS FOR THE SWITCH RESULT IN THE FOLLOWING:
    HI-Z SETTING - PRESENTS THE NORMAL IMPEDANCE TO INCOMING RINGING SIGNALS, BUT A HIGH BLOCKING IMPEDANCE TO VOICE SIGNALS
    NORM SETTING - PRESENTS A NORMAL IMPEDANCE TO BOTH RINGING SIGNALS AND VOICE SIGNALS
    IN CANADA THE HI-Z SWITCH MUST BE SET TO HI-Z

SET IPC BATTERY SWITCH
MAP200-507
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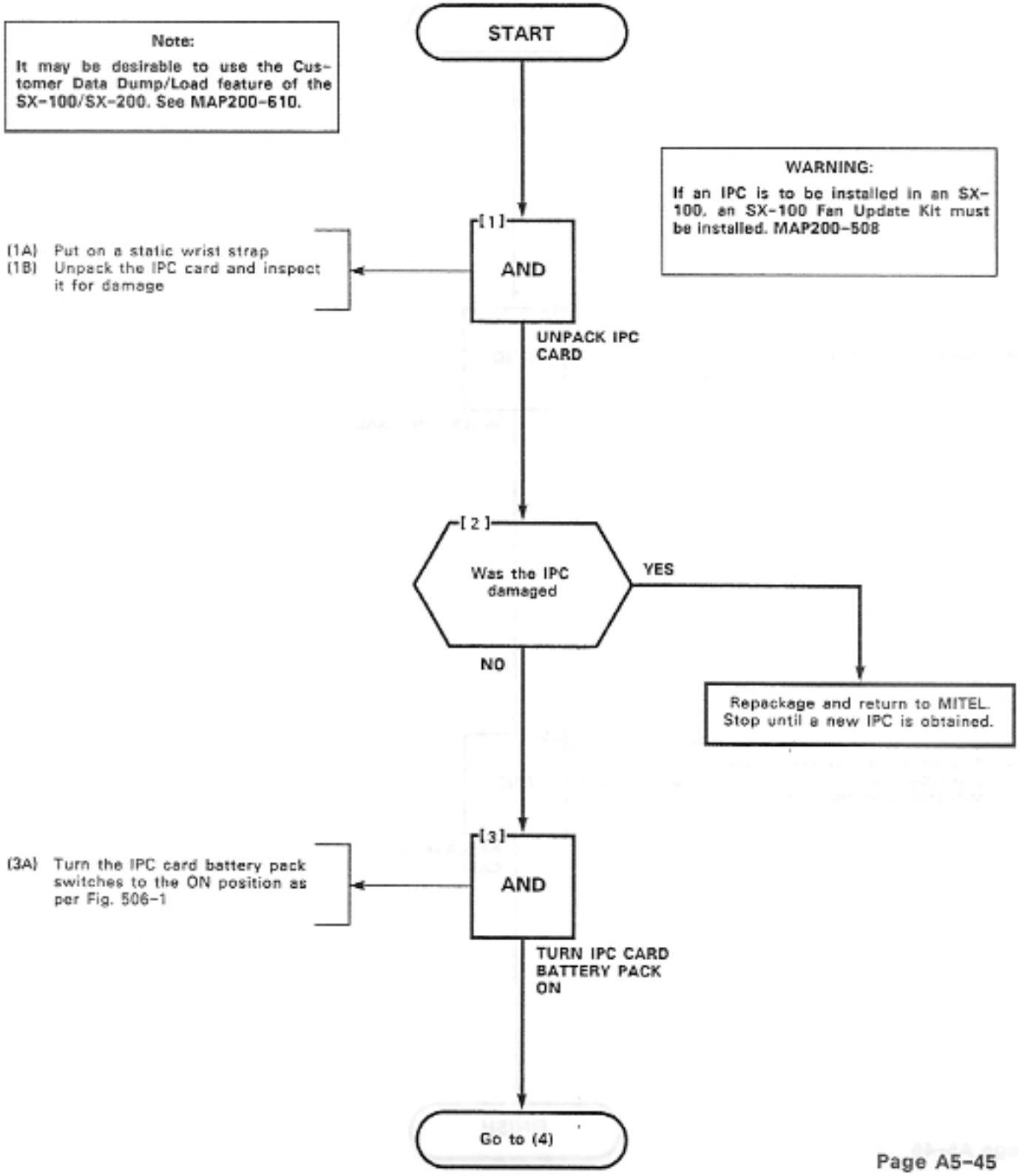

SET IPC BATTERY SWITCH
MAP200- 507
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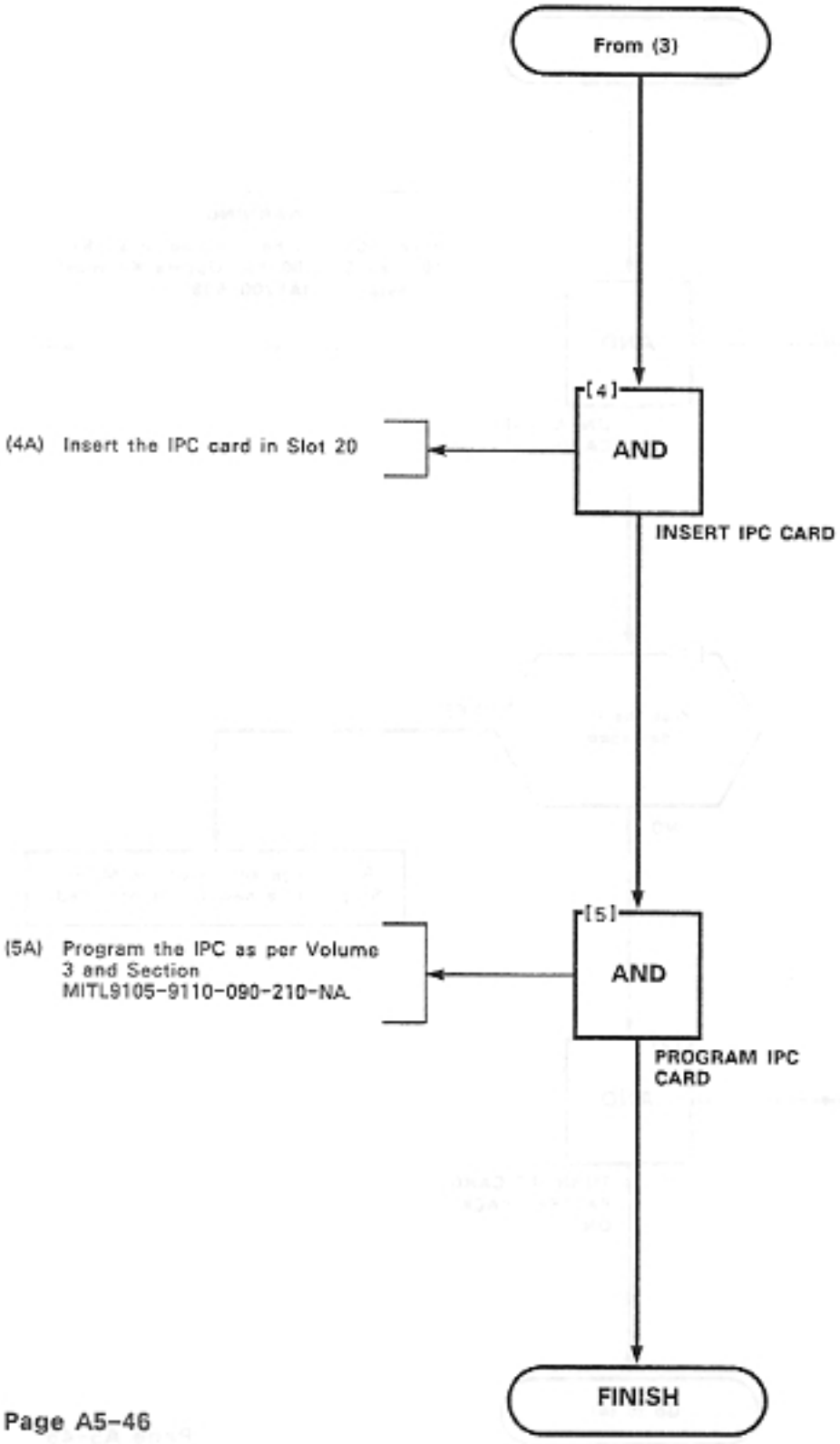

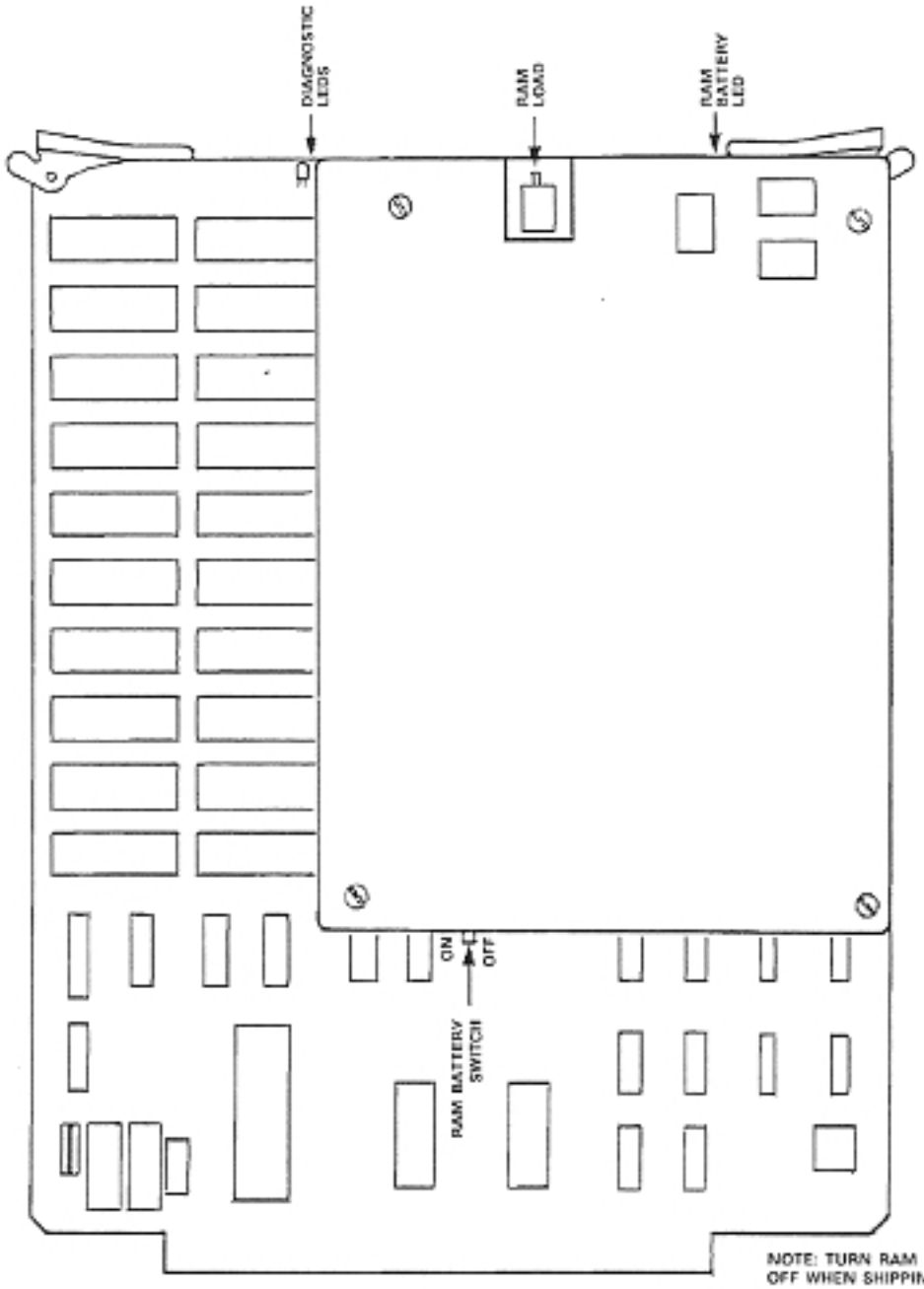

Fig. 507-1 IPC Card

INSTALL SX-100 FAN UPDATE KIT
MAP200-508
Issue 1, September 1983
Sheet 1 of 3

START

WARNING

SYSTEM MUST BE POWERED DOWN TO INSTALL KIT.

[1] AND

(1A) Unlock and remove the top of the cabinet
(1B) If a ground wire is attached to the top of the cabinet, disconnect it
(1C) Unpack SX-100 fan kit
(1D) Report any discrepancies immediately to MITEL and correct before proceeding

UNLOCK AND REMOVE CABINET TOP AND INSPECT KIT

[2] AND

(2A) Unlock and open the front door
(2B) Power system down by turning the DC and AC power switches on the power supply to the 'OFF' position
(2C) Disconnect the commercial power source by pulling the AC receptacle from the socket

POWER DOWN SYSTEM

[3] AND

(3A) Unscrew mounting screw and attach cable harness and cable as per Fig. 508-1
(3B) Connect Red wire of fan to pin 4 of TB302, and Black wire of fan to pin 2 of TB302 (Fig. 508-1).
(3C) If a ground wire was connected to the top of the cabinet, connect it to the new top with the hex-nut provided.

CONNECT CONNECTOR

Go to (4)

INSTALL SX-100 FAN UPDATE KIT
MAP200- 508
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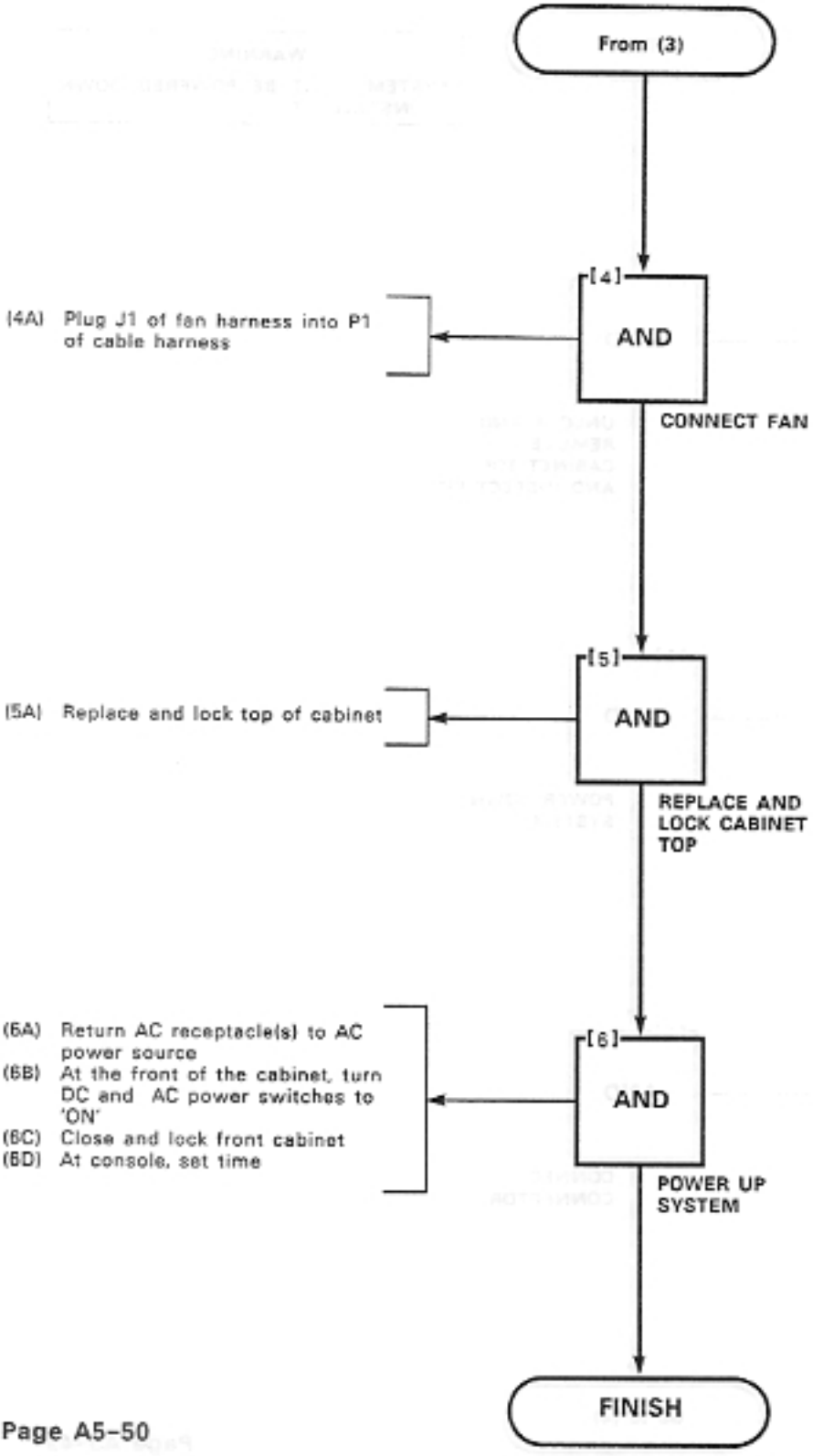

INSTALL SX-100 FAN UPDATE KIT
MAP200-508
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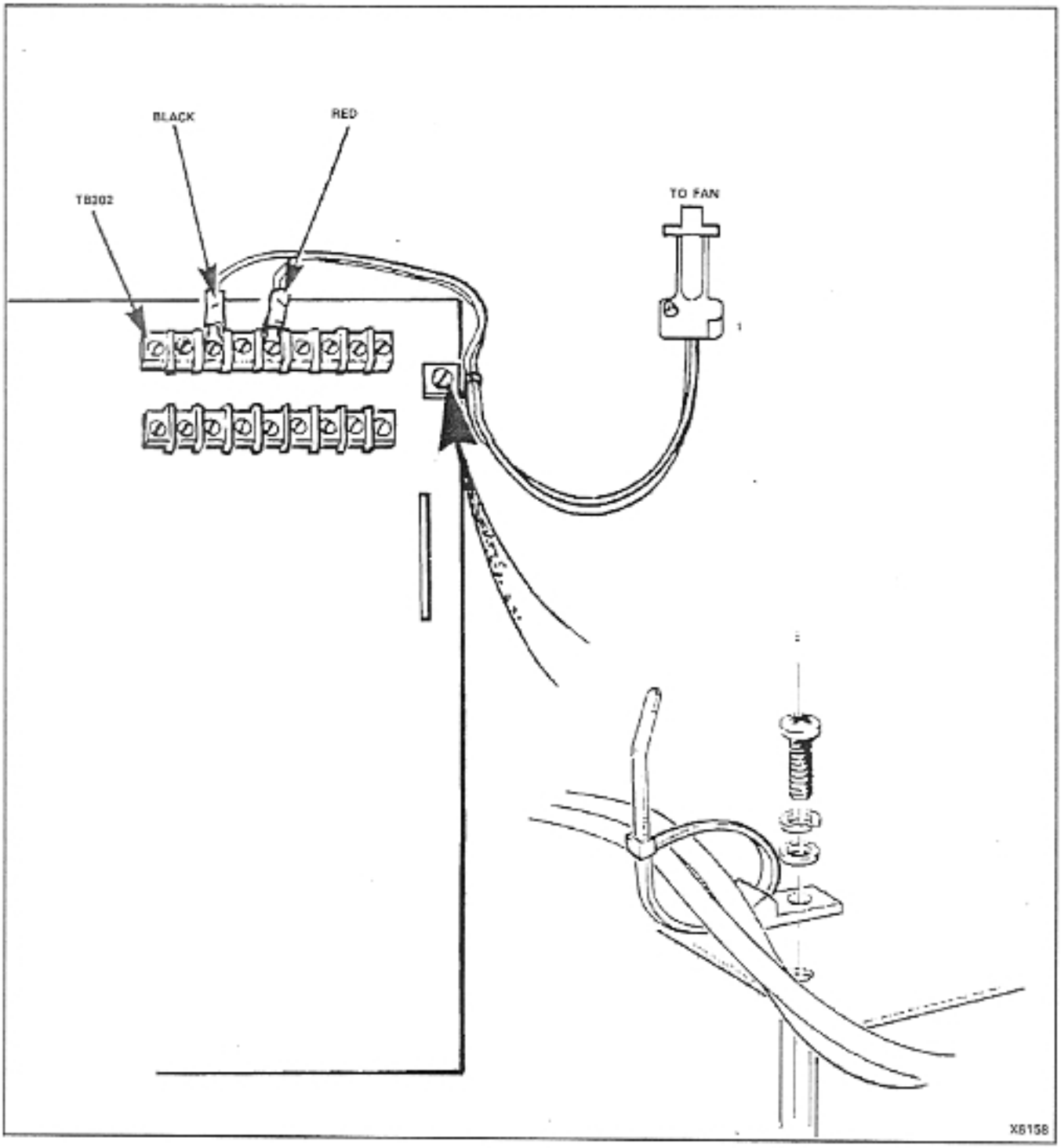

Fig. 508-1

INSTALL SUPERSET 3/4
MAP200- 509
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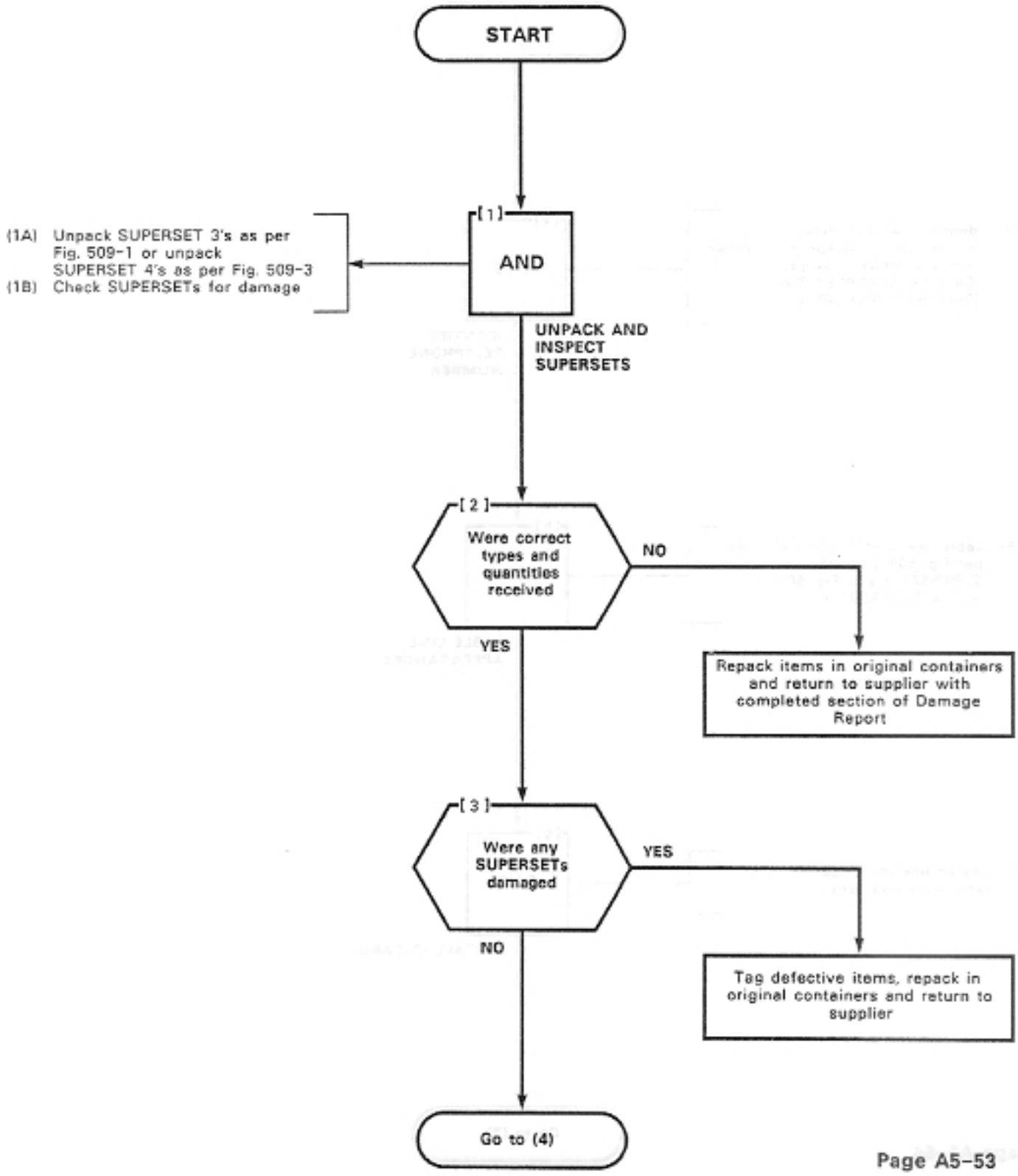

INSTALL SUPERSET 3/4
MAP200- 509
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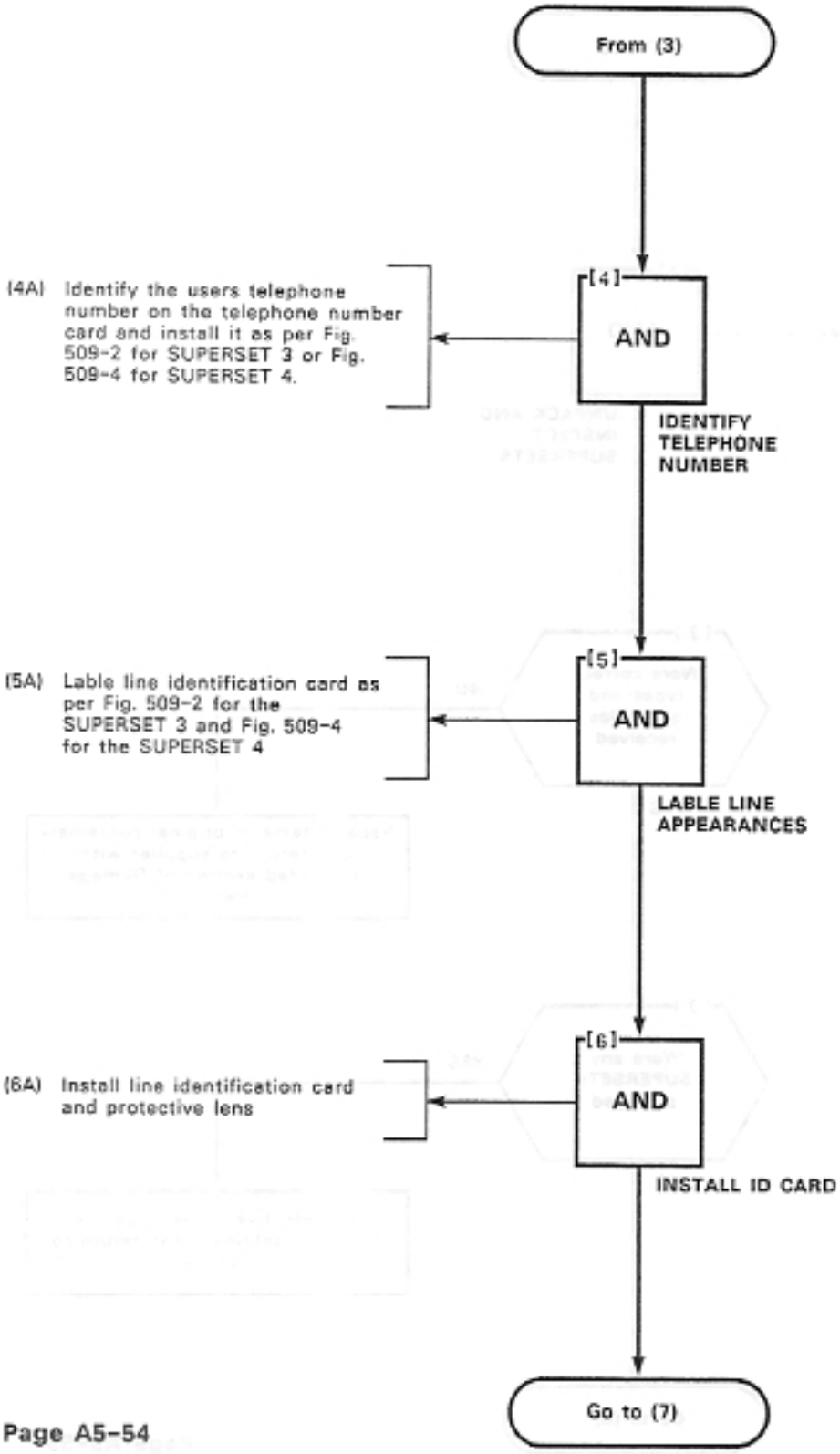

INSTALL SUPERSET 3/4
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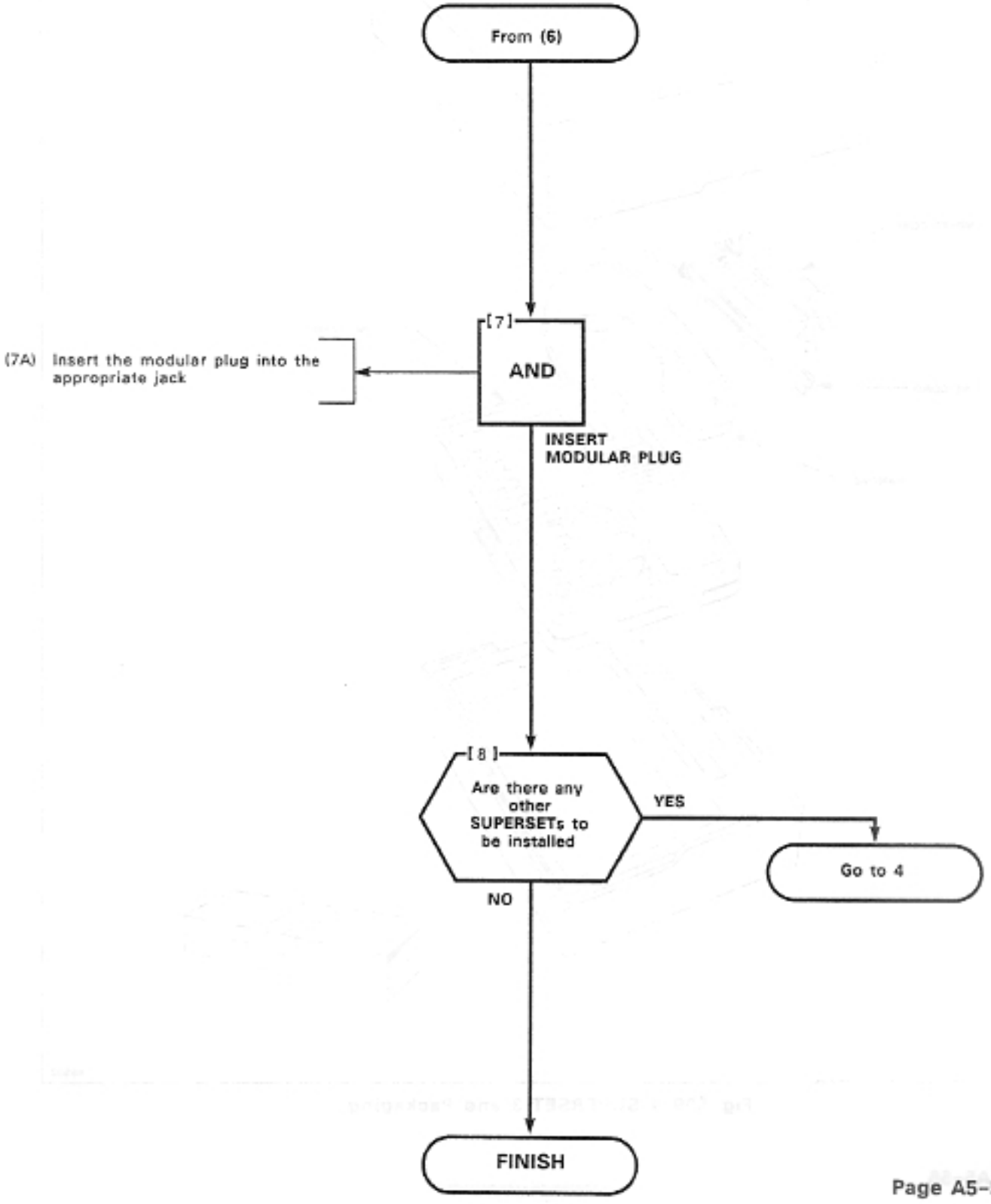

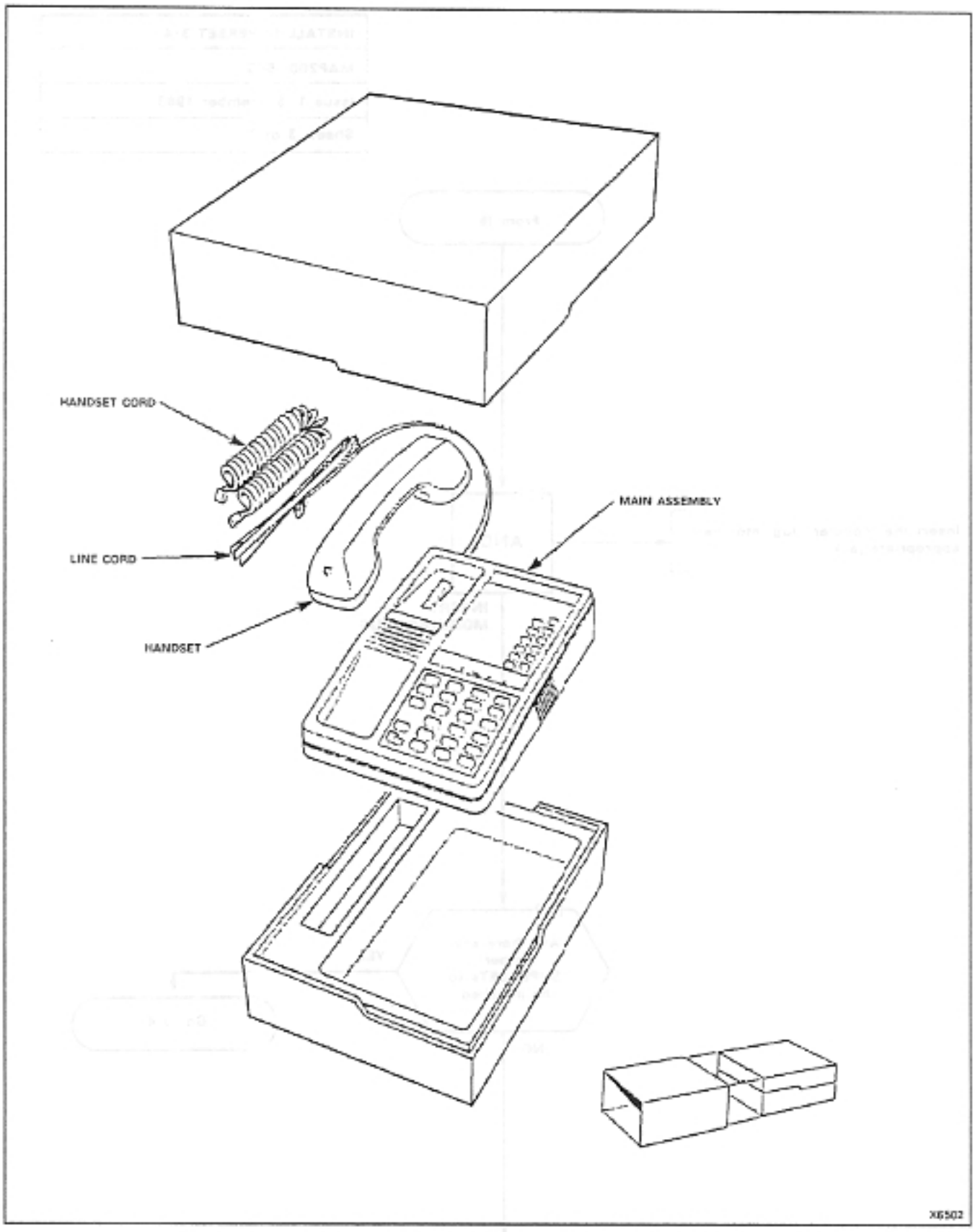

Fig. 509-1 SUPERSET 3 and Packaging

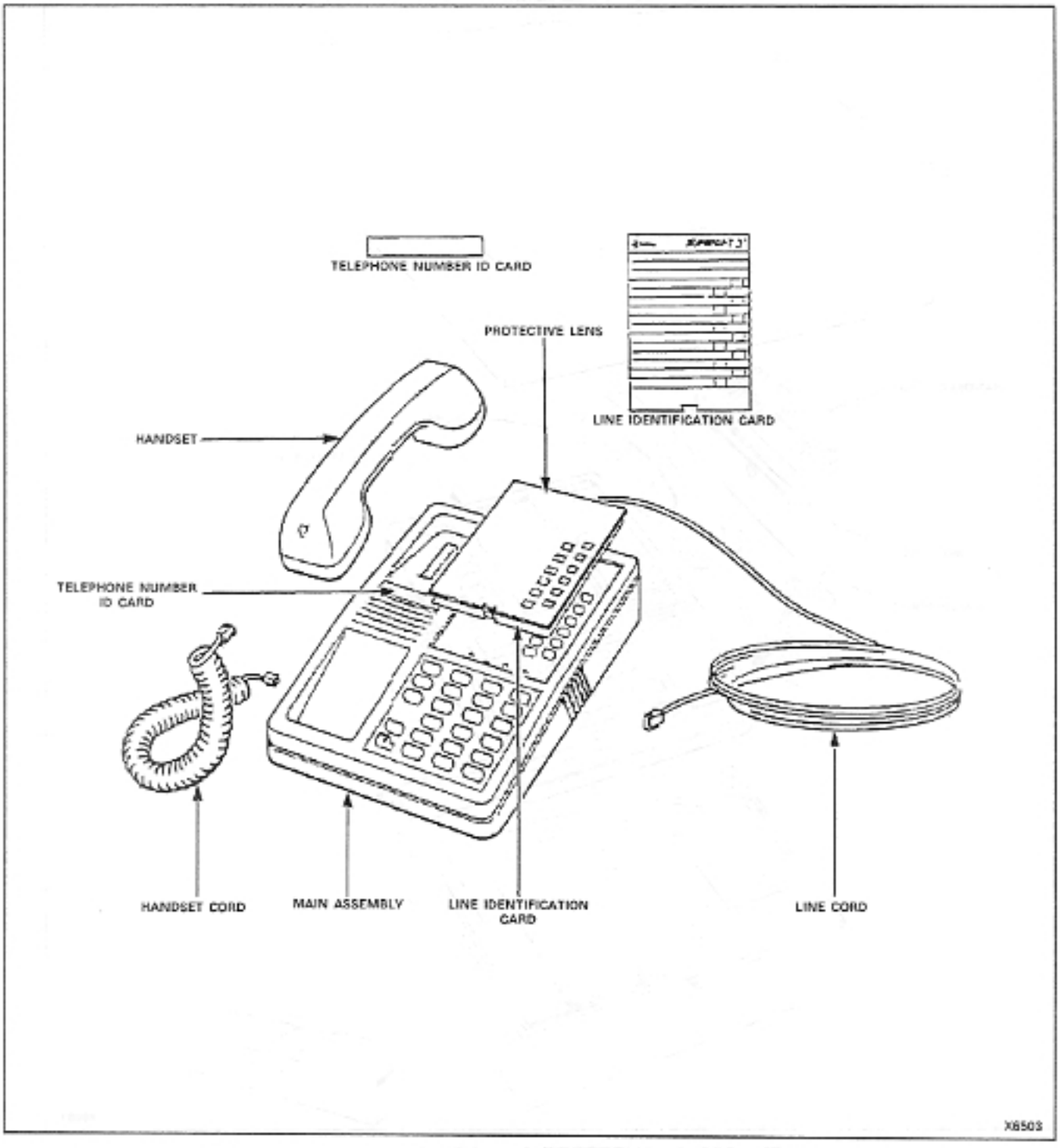

Fig. 509-2 SUPERSET 3

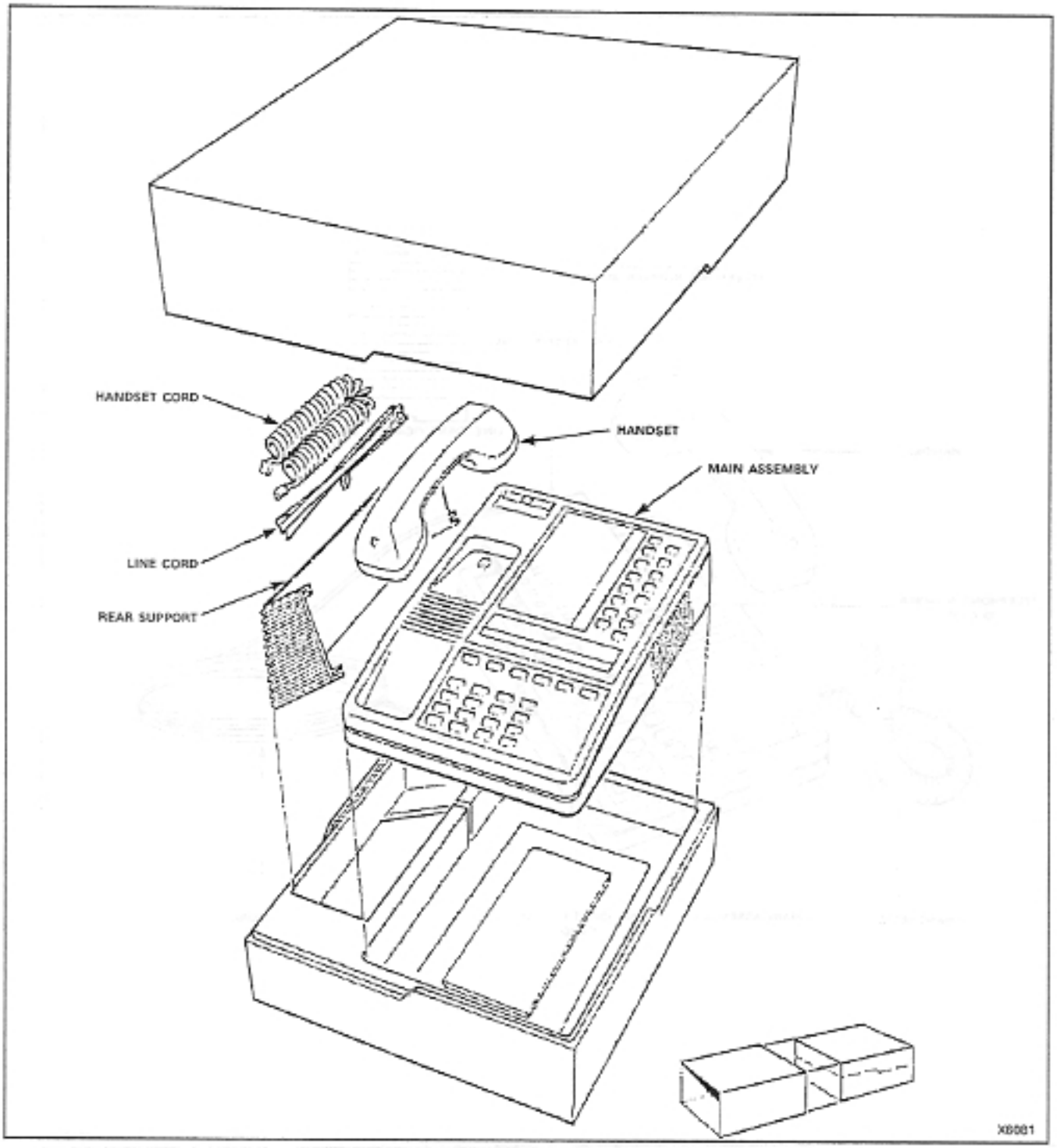

Fig. 509-3 SUPERSET 4 and Packaging

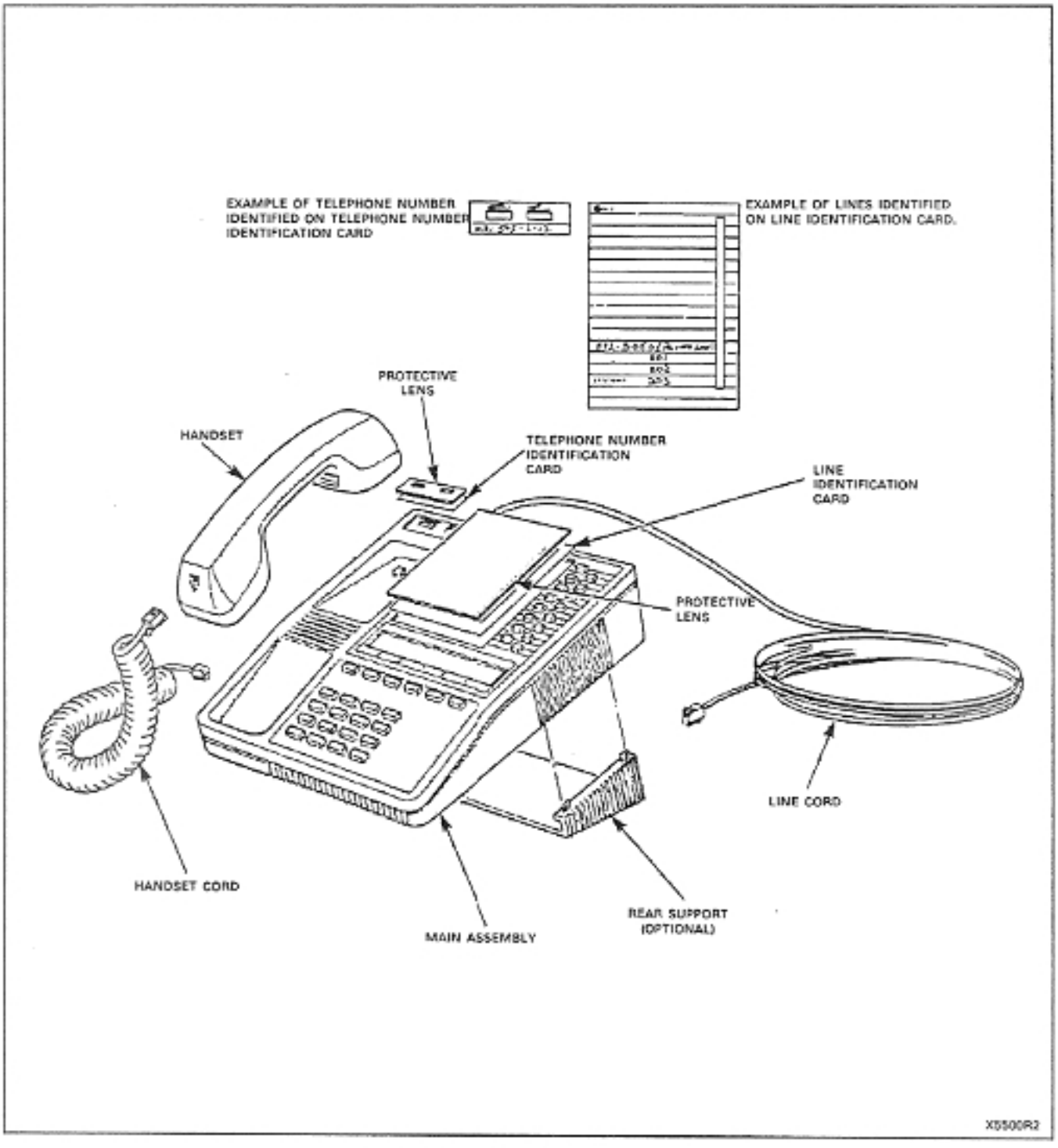

Fig. 509-4 SUPERSET 4 Assembly

APPENDIX 6
ADDITIONAL EQUIPMENT INSTALLATION

1. GENERAL

A6.01 The MAP's contained in this Appendix are concerned with additional installation requirements which may be required during initial or subsequent installation phases.

A6.02 A list of these additional requirements is shown in Table A6-1.

TABLE A6-1
ADDITIONAL INSTALLATION REQUIREMENTS

Step	Procedure	Reference
1	Shelf 2 Installation (SX-200)	MAP200-601
2	Install New Cards	MAP200-602
3	Reserve Power Supply Installation (SX-200)	MAP200-603
4	Console Interface Board Installation (SX-200)	MAP200-604
5	Backplane Translator Board Installation	MAP200-605
6	Installation of RCP Card	MAP200-606
7	Reserve Power Supply Installation (SX-100)	MAP200-607
8	Printer Installation	MAP200-608
9	Static Wrist Strap Installation	MAP200-609
10	Customer Data Dump/Loud	MAP200-610
11	Installation of RAC Card	MAP200-611

SHELF 2 INSTALLATION (SX-200)
MAP200-601
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Sheet 1 of 6

START

TOOLS REQUIRED
1 Screwdriver 1/4 inch blade
1 Screwdriver Phillips

CAUTION
When handling shelf cards or similar modules ensure that a static wrist strap is used.

NOTE
This MAP applies only to SX-200 equipment.

[1] AND

(1A) Unpack shelf
(1B) Check backplane for cracks and bent pins
(1C) Check hardware against packing slip
(1D) Check fuses (if supplied)

UNPACK AND CHECK SHELF

WARNING
If the system has any power to it (48 Vdc reserve or AC power), this power must be removed (Step 3).

[2] Were any items found defective or missing

YES → Complete Damage Report Form and return with defective items to the Supplier → FINISH

NO

[3] AND

AT REAR OF CABINET
(3A) Set CONVERTER INPUT switch to OFF
(3B) Set BATT switch to OFF
(3C) Remove power plug(s) from outlet

POWER DOWN SYSTEM

Go to (4)

SHELF 2 INSTALLATION (SX-200)
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From (3)

[4] AND

AT FRONT OF THE EQUIPMENT CABINET
(4A) Unlock front door
(4B) Open front door

UNLOCK FRONT DOOR

[5] AND

(5A) Place shelf onto shelf guides
(5B) Fasten shelf to equipment cabinet using the eight No. 10 pan head Phillips screws (Fig. 601-1)

INSTALL SHELF FIG. 601-1

[6] AND

ON SHELF 2 (FIG. 601-2)
(6A) Remove insulation from all cables
(6B) Connect violet wire to TB1 terminal 1 (-10 V)
(6C) Connect yellow wire to TB1 terminal 3 (-5 V)
(6D) Connect brown wire to TB1 terminal 4 (0 V)
(6E) Connect orange wire to TB1 terminal 5 (+8 V)
(6F) Connect gray wire to TB2 terminal 3 (90 V RINGING)
(6G) Connect brown wire to TB2 terminal 5 (GND)
(6H) Connect blue wire to TB2 terminal 6 (-48 V)

CONNECT CABLE HARNESS FIG. 601-2

Go to (7)

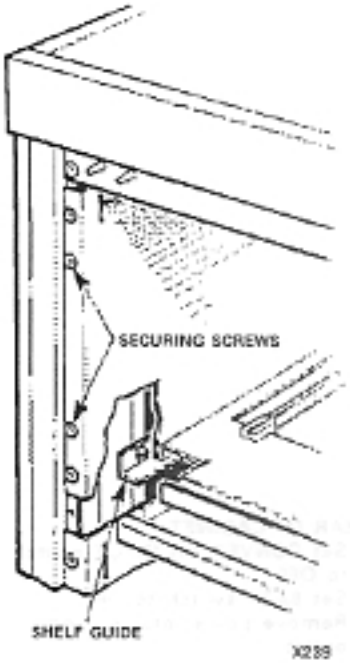

Fig. 601-1

SHELF 2 INSTALLATION (SX-200)
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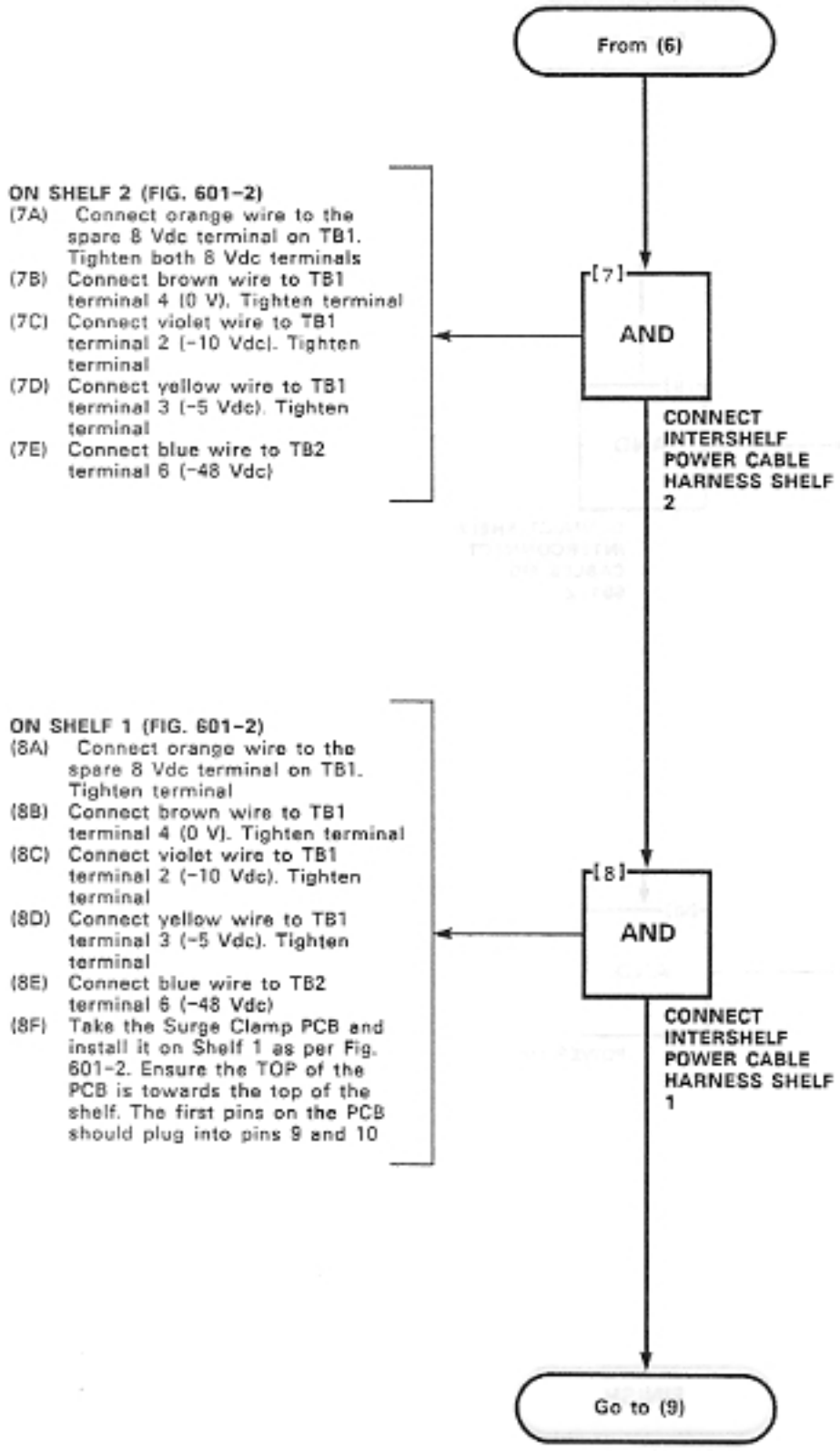

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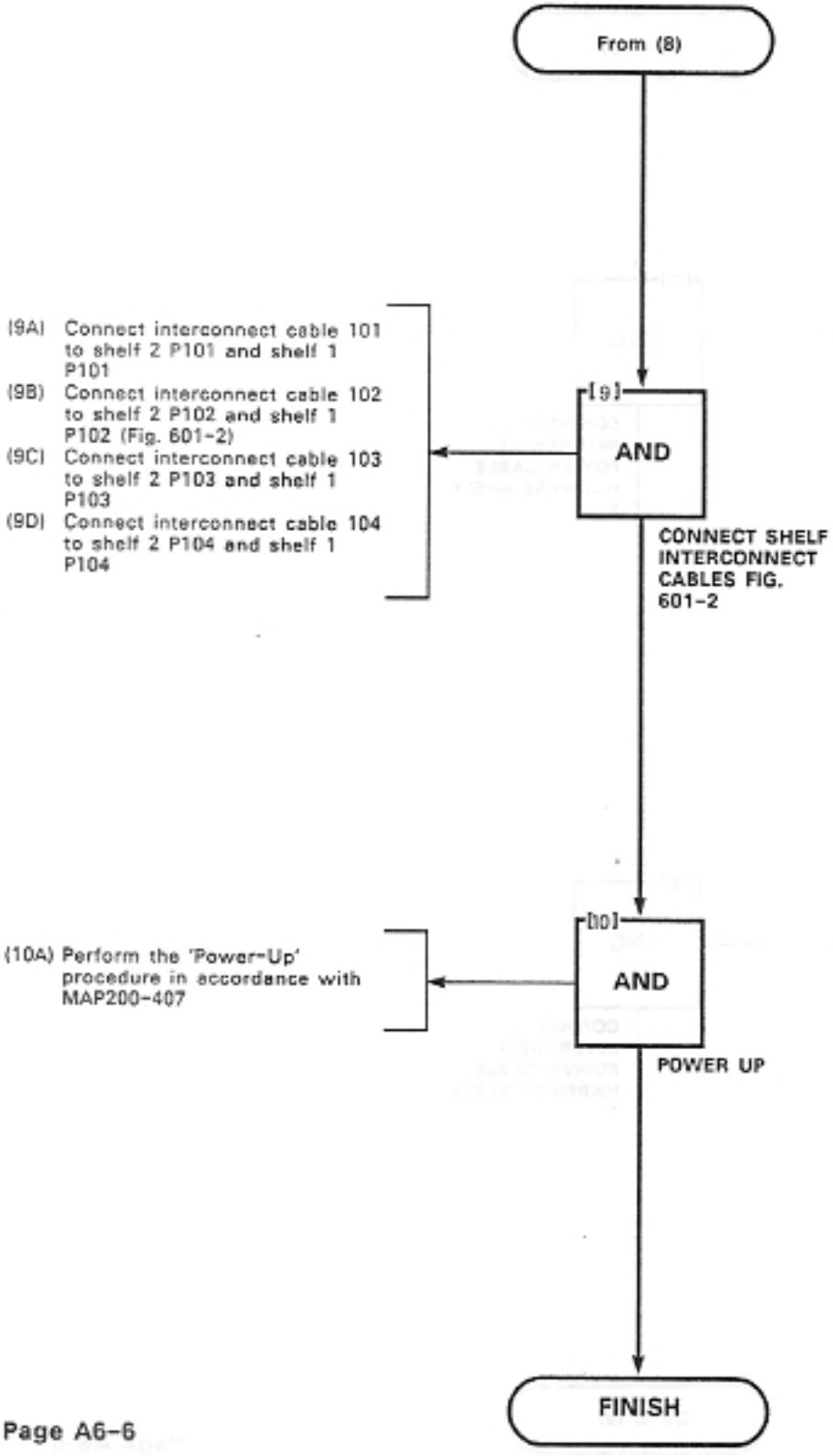

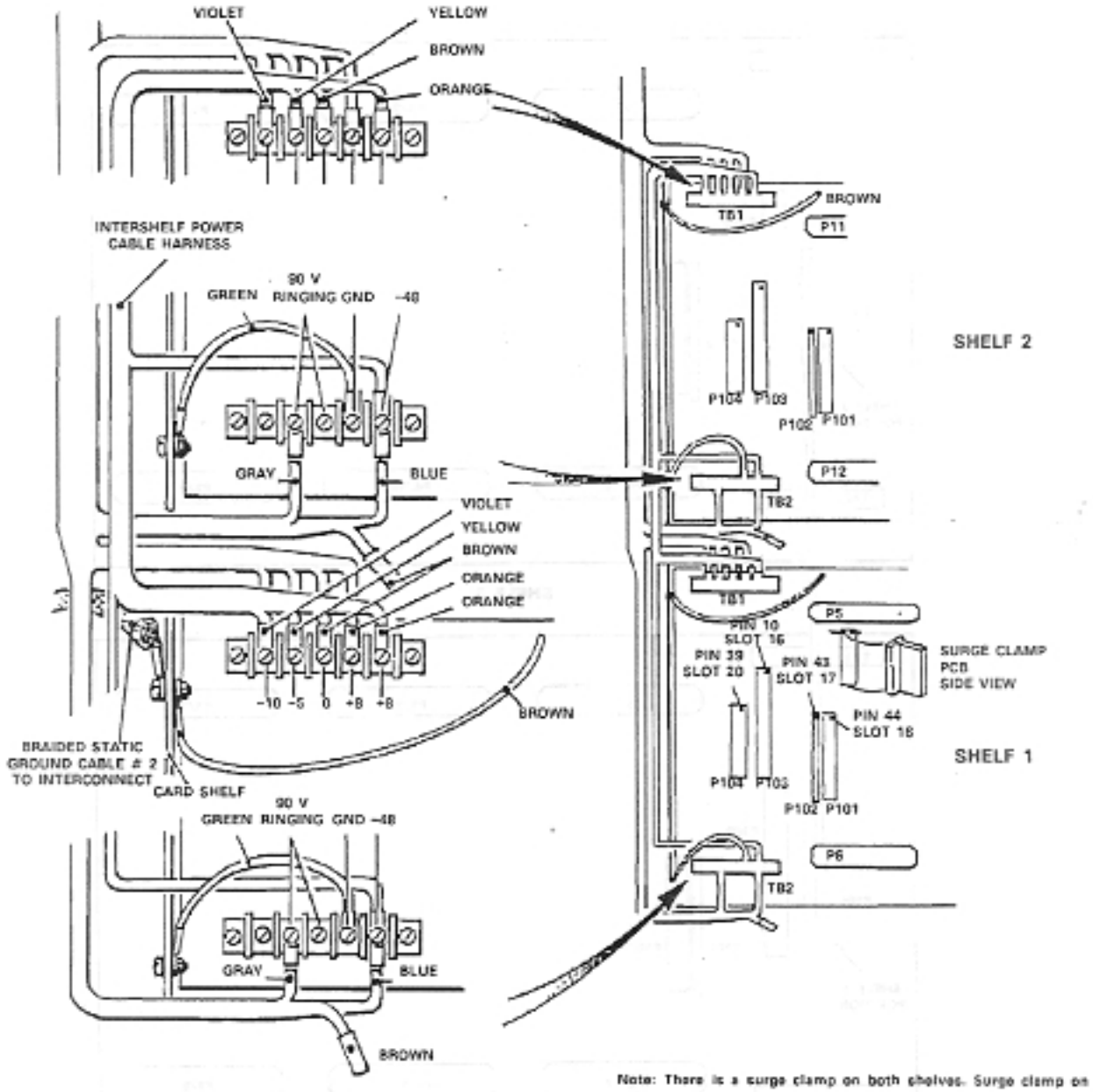

Note: There is a surge clamp on both shelves. Surge clamp on second shelf not shown. Second shelf surge clamp in same positions as first shelf clamp.

X116R4

Fig. 601-2 SX-200 Backplanes

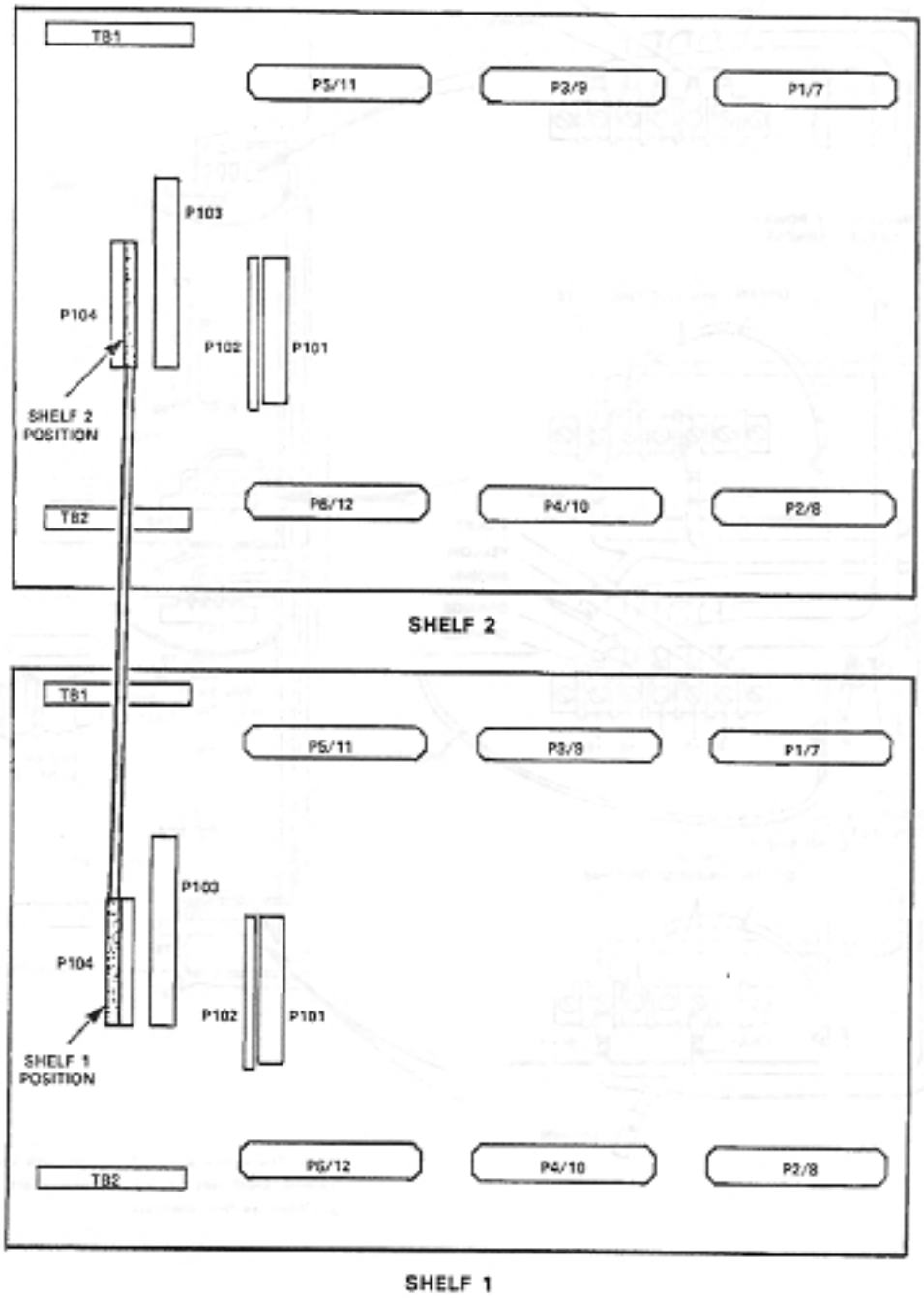

Fig. 601-3 P104 Backplane Connections

INSTALL NEW CARDS
MAP200-602
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START

CAUTION

When handling shelf cards or similar modules ensure that the procedures noted in paragraph 12.02 are followed.

[1] AND

(1A) Unpack cards from containers
(1B) Inspect cards for physical damage
(1C) Check card types and quantities against invoice

UNPACK AND INSPECT CARDS

[2] Were correct types and quantities received

NO → Repack items in original containers and return to supplier, with completed section of Damage Report

YES

[3] Were any cards damaged

YES → Tag defective items, repack in original containers and return to supplier with completed section of Damage Report

NO

Go to (4)

INSTALL NEW CARDS
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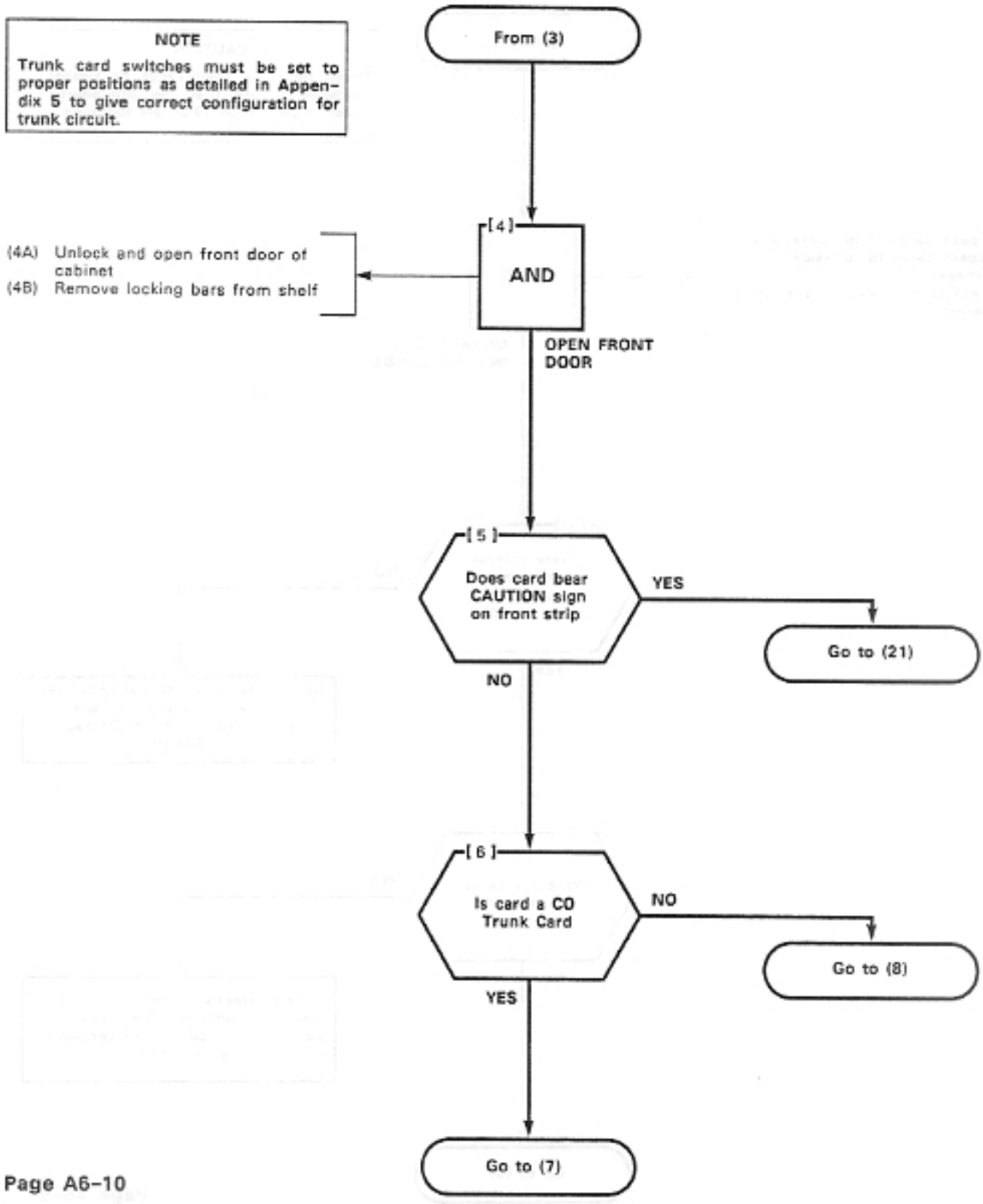
NOTE

Trunk card switches must be set to proper positions as detailed in Appendix 5 to give correct configuration for trunk circuit.



INSTALL NEW CARDS
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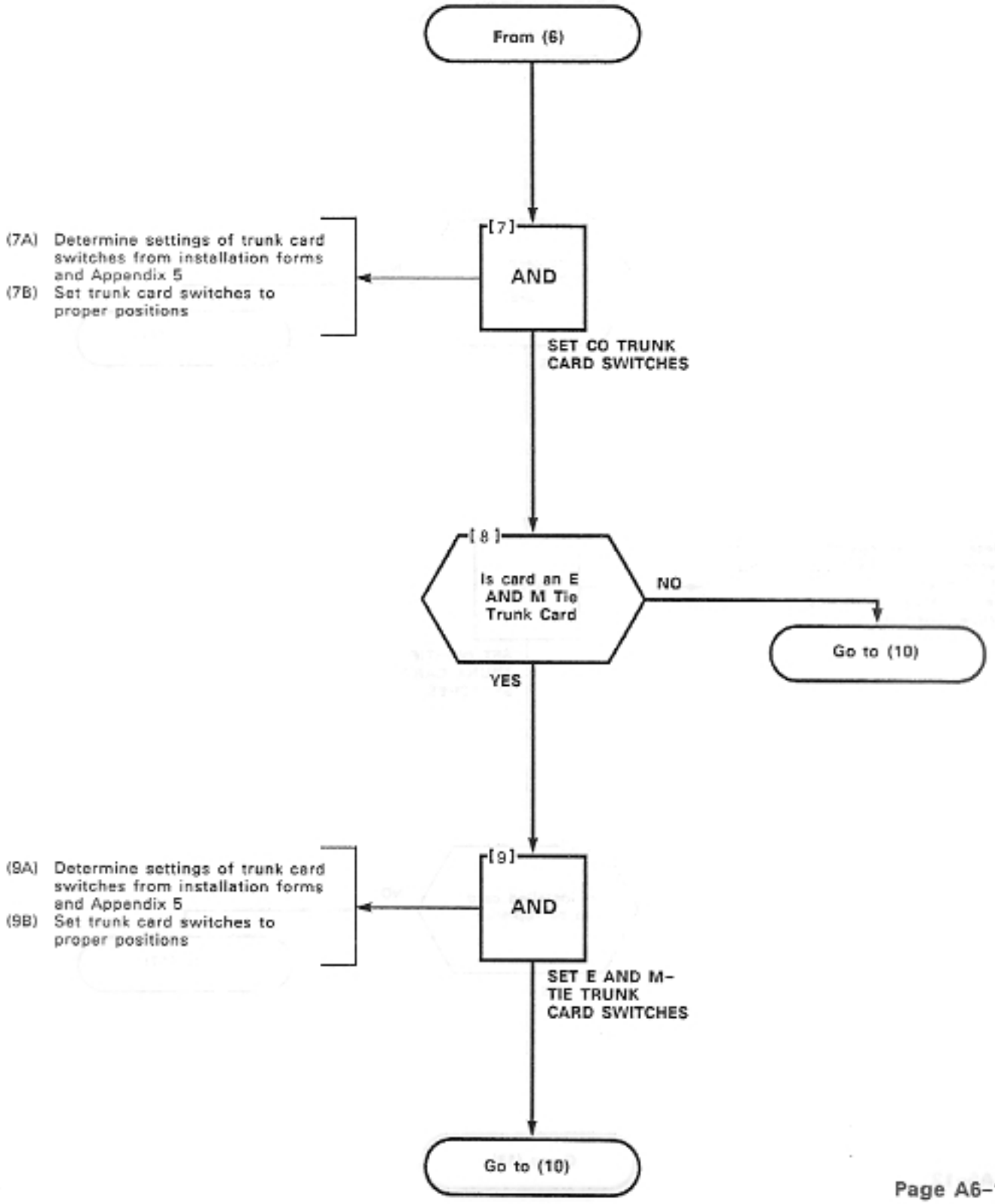

INSTALL NEW CARDS
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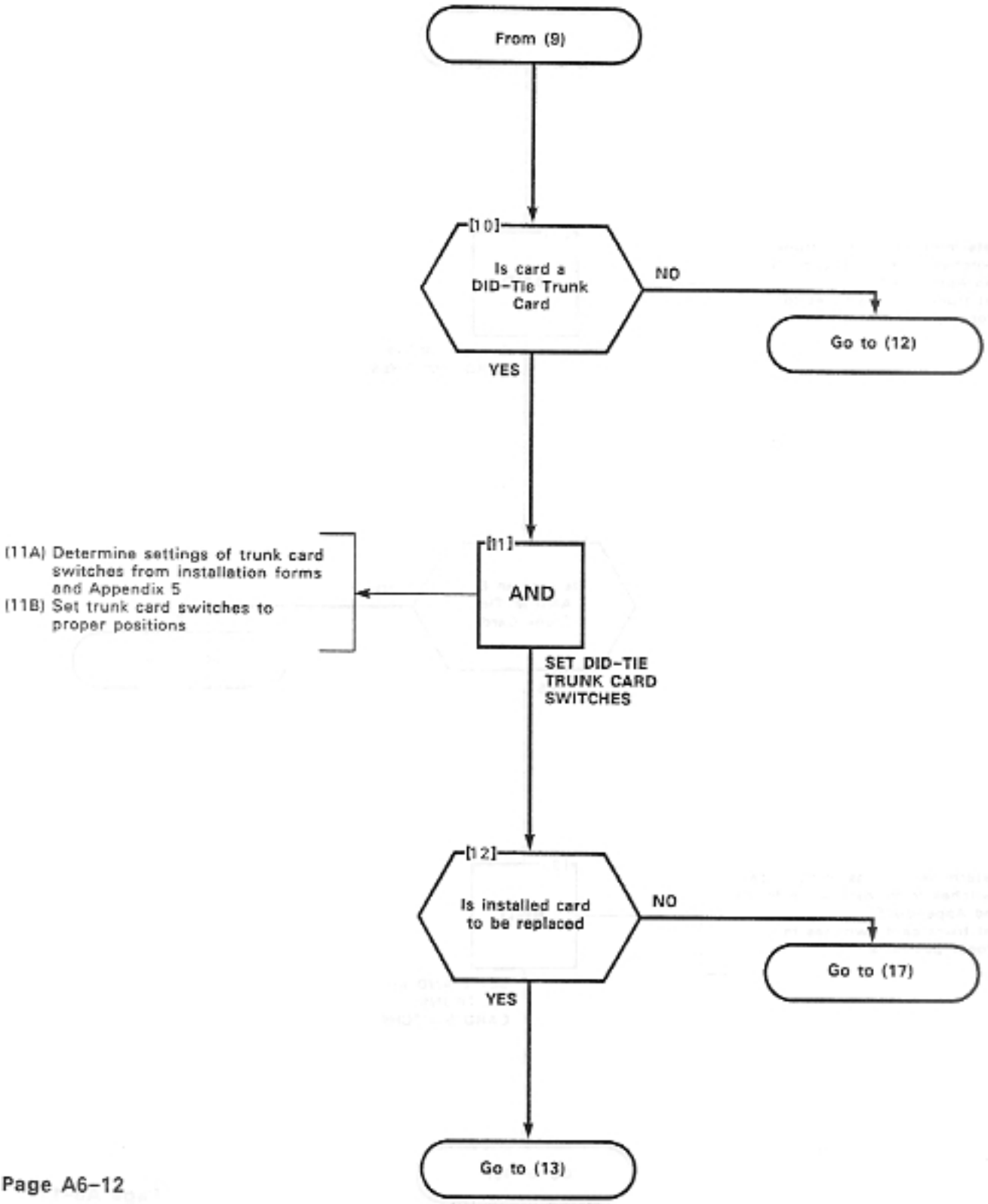

INSTALL NEW CARDS
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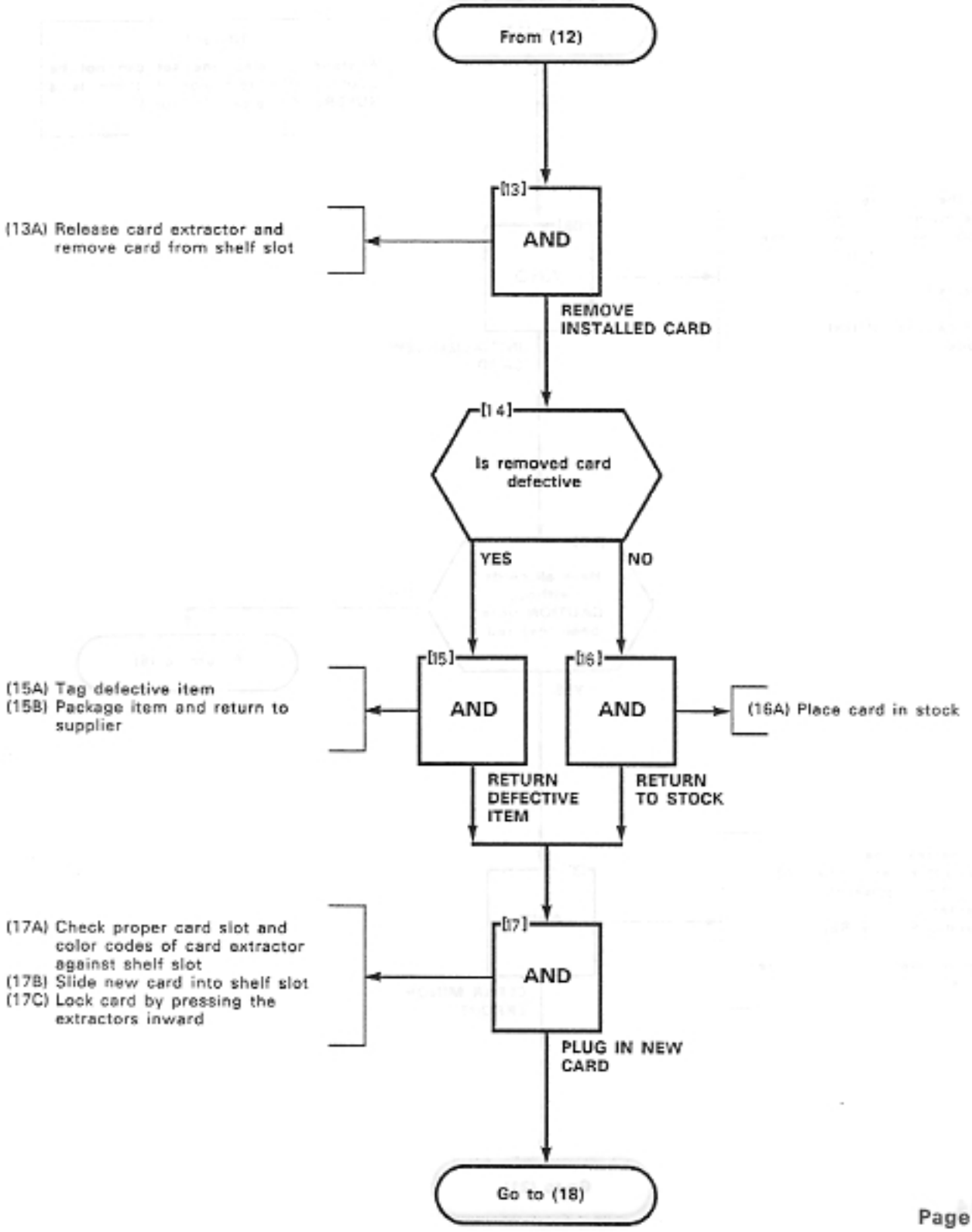

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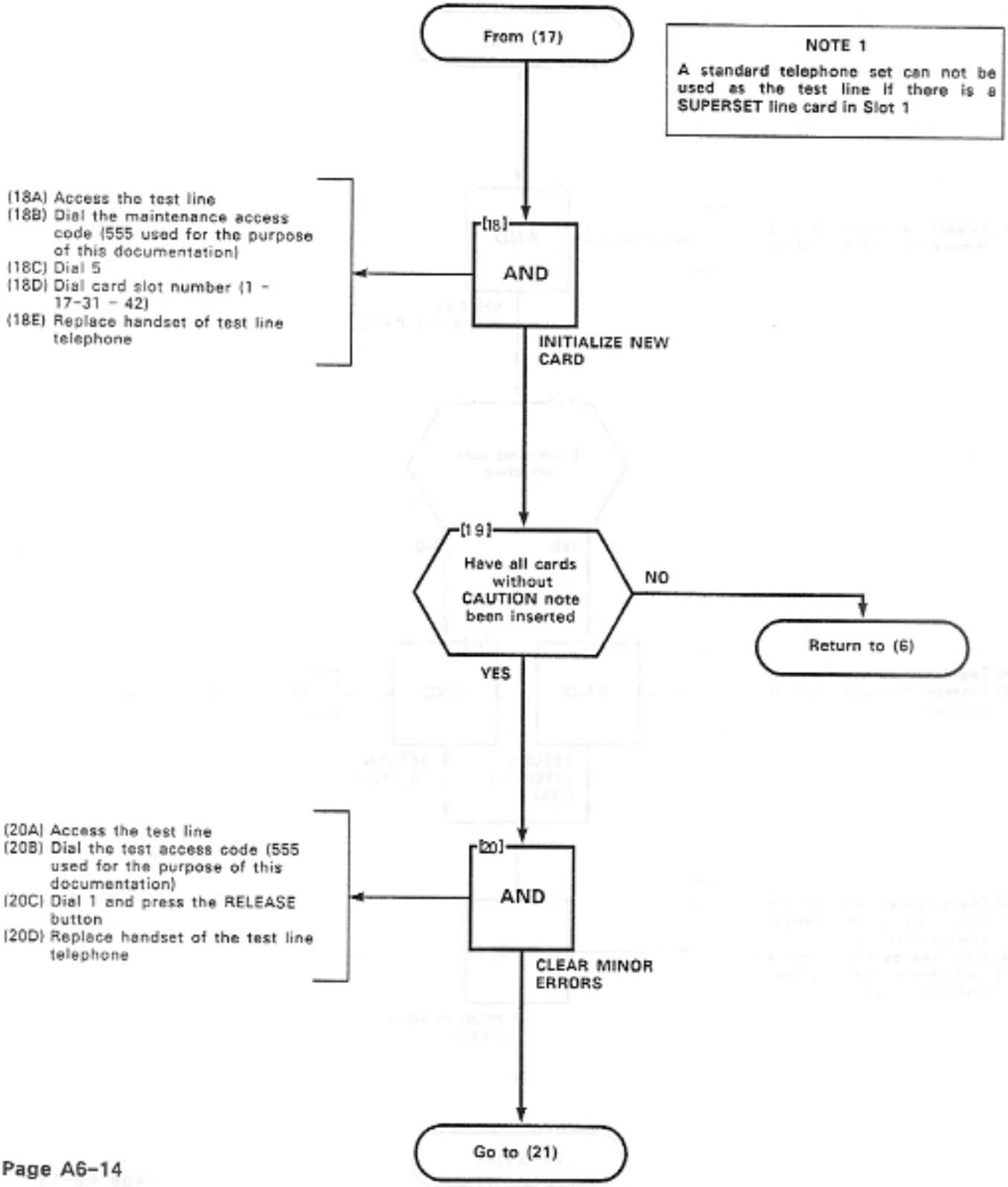

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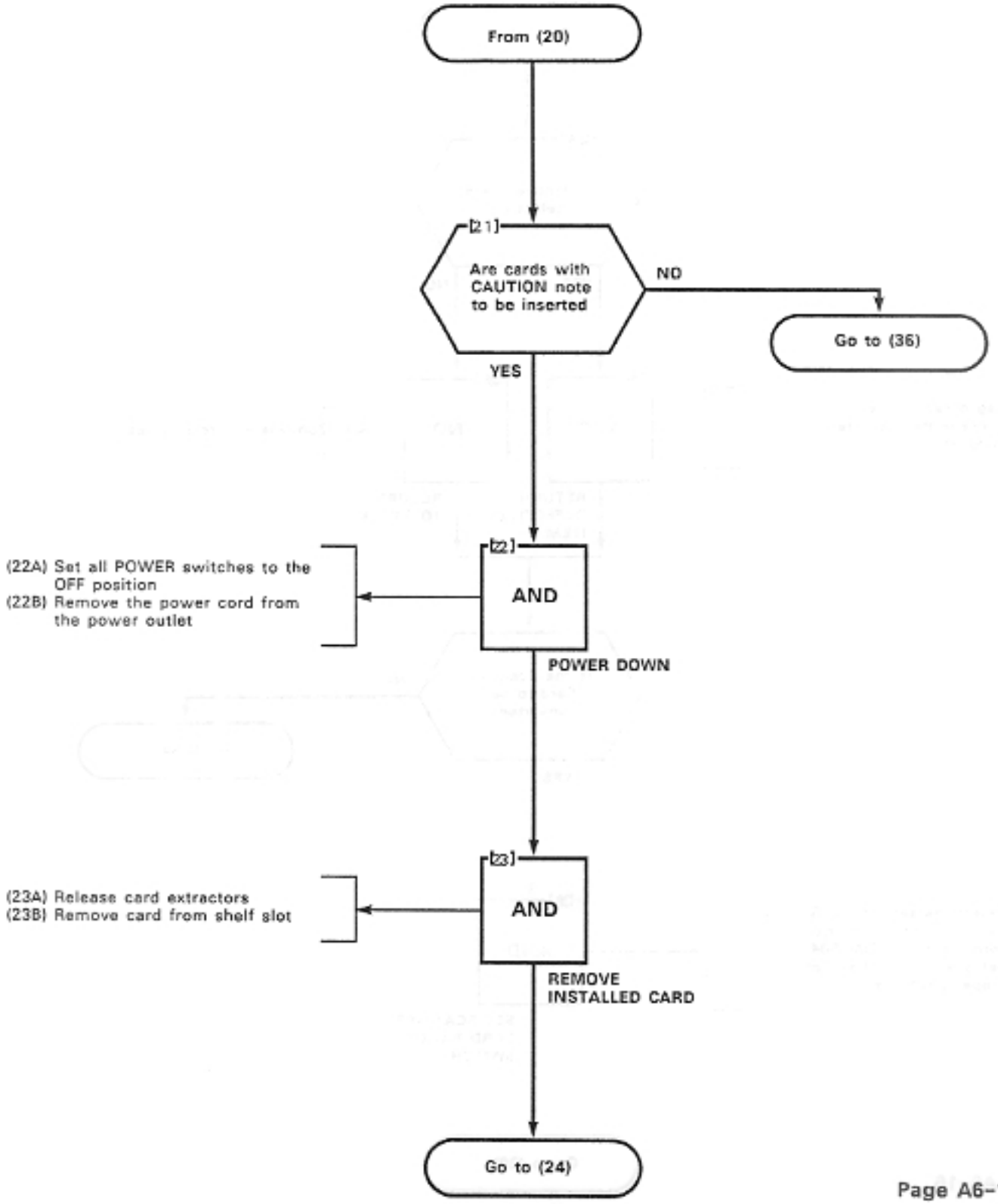

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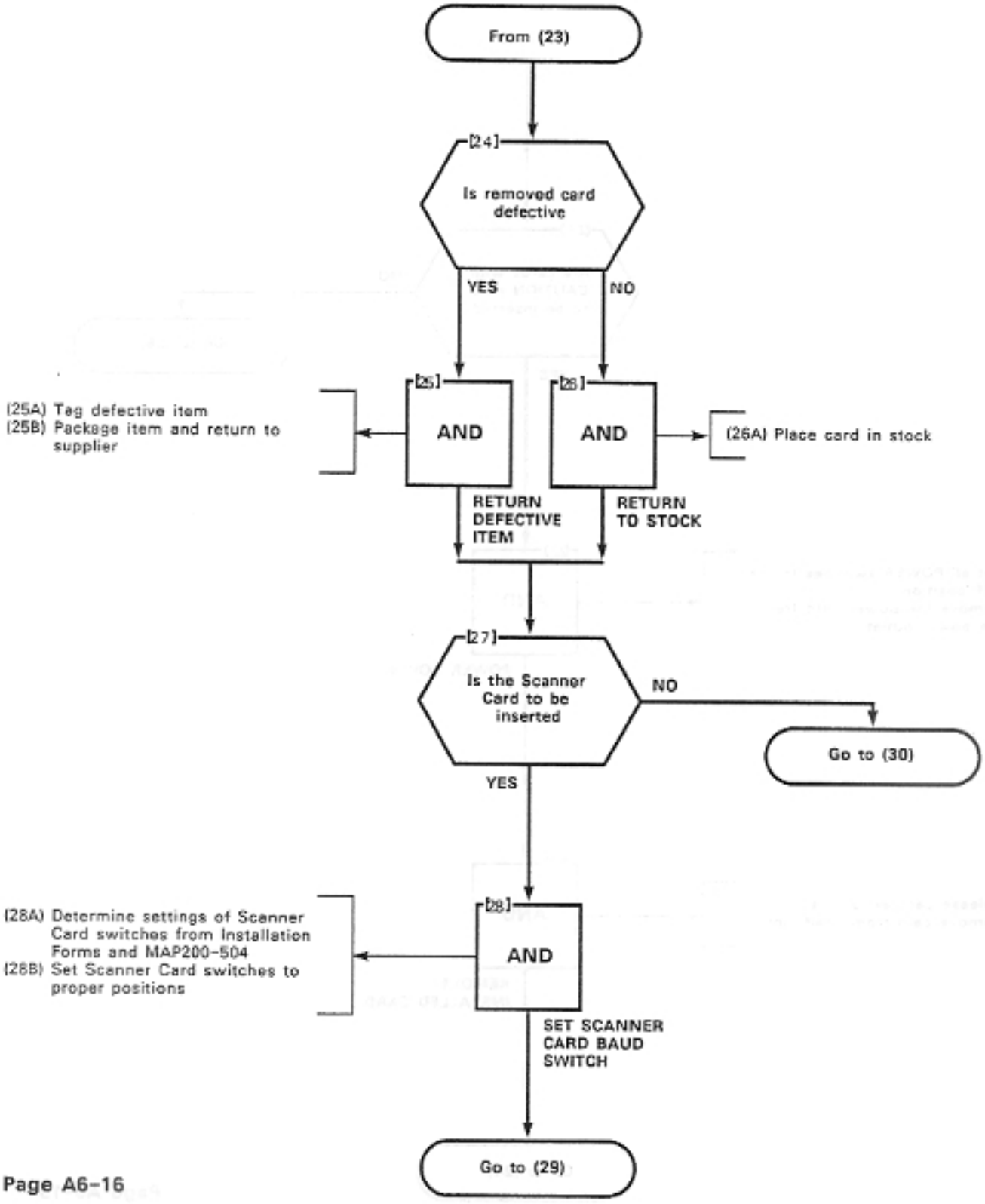

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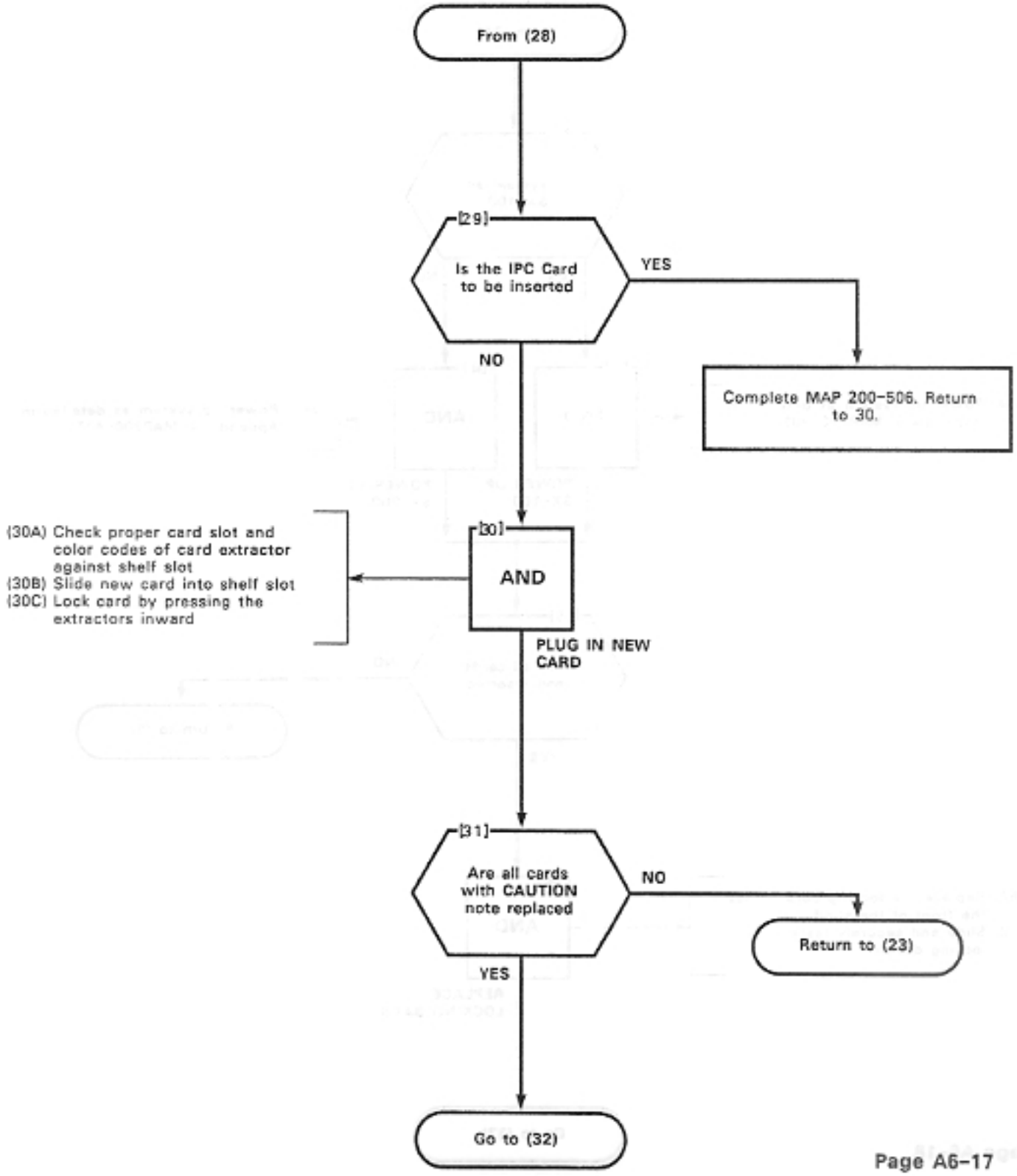

INSTALL NEW CARDS
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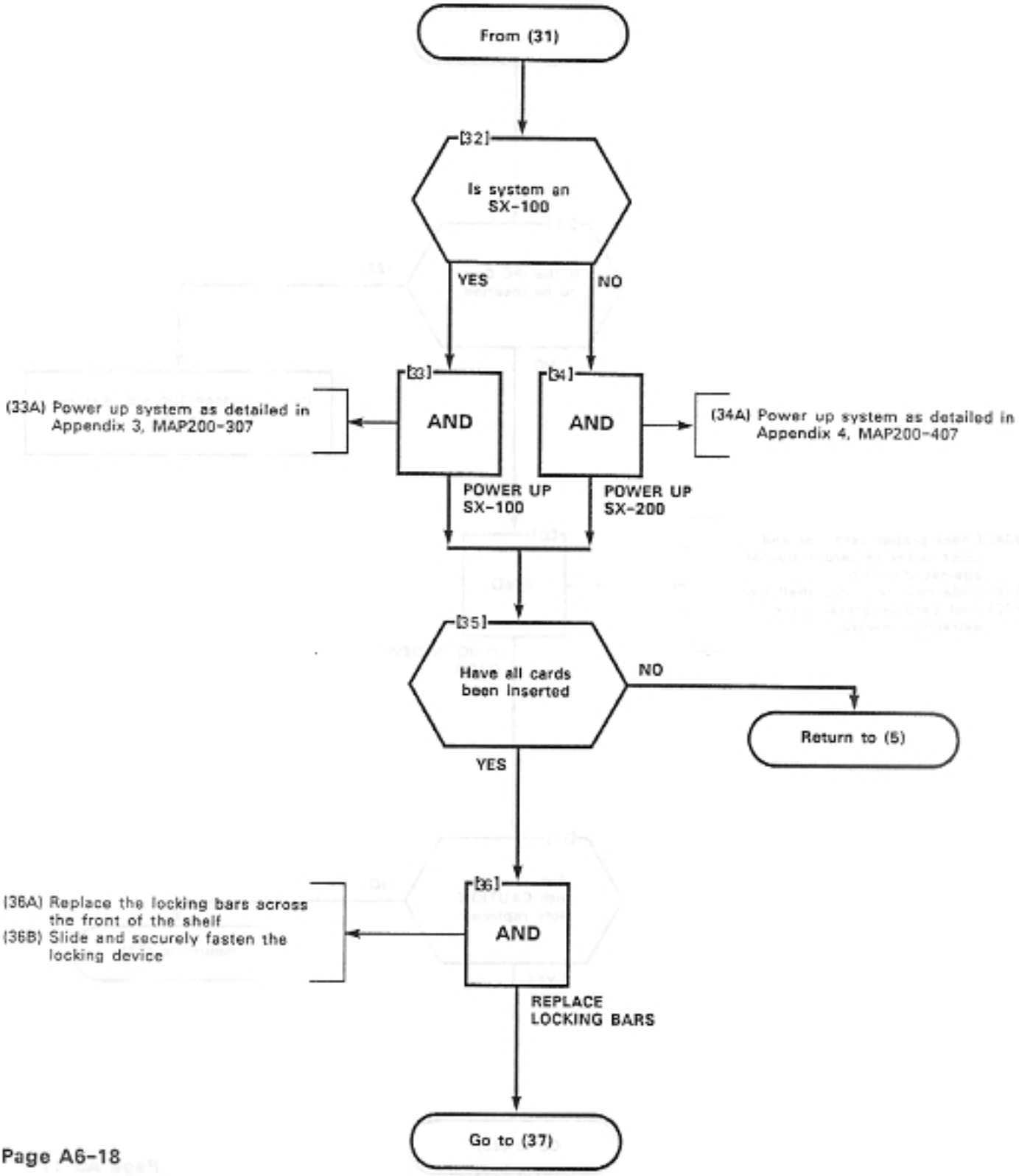

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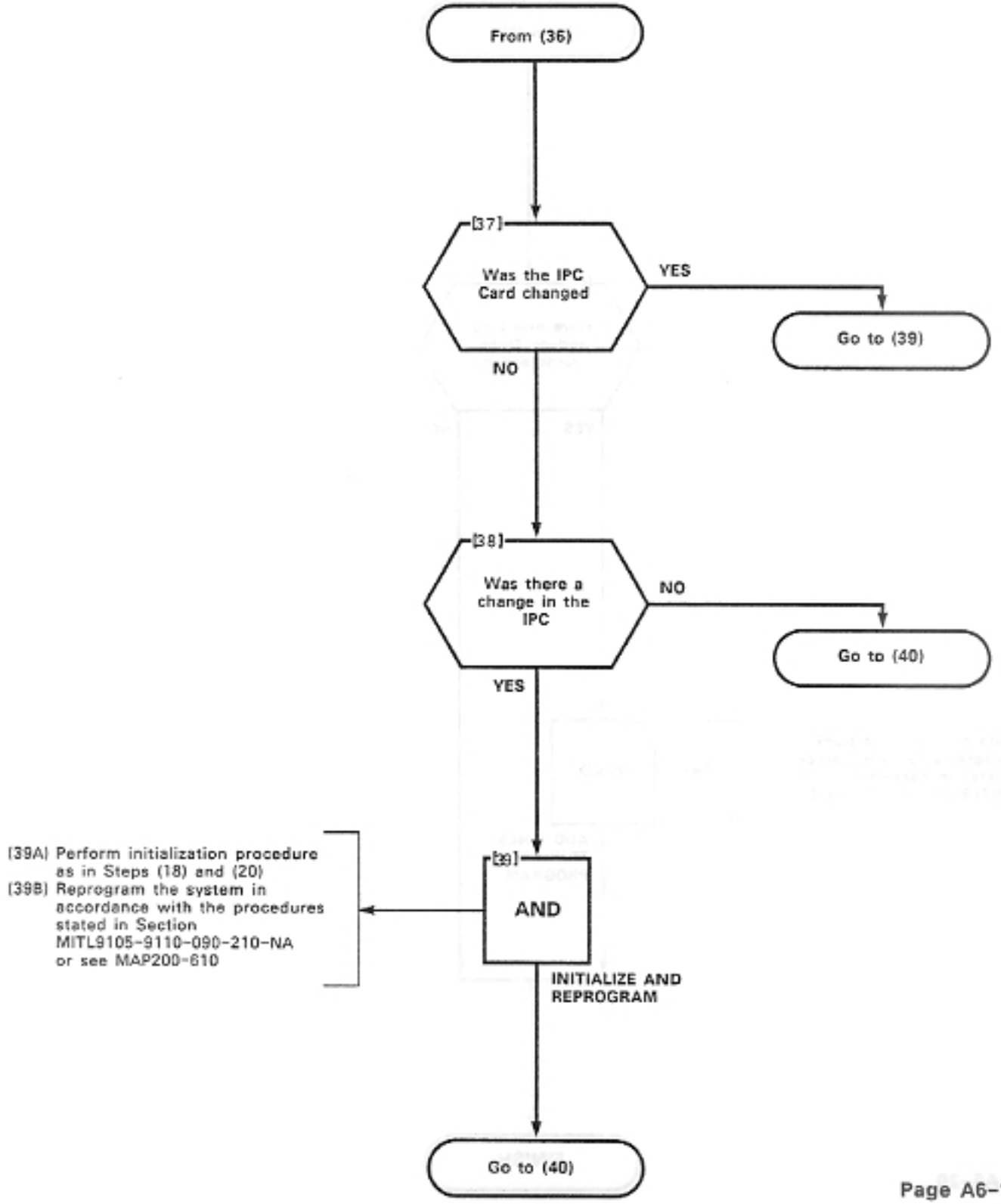

INSTALL NEW CARDS
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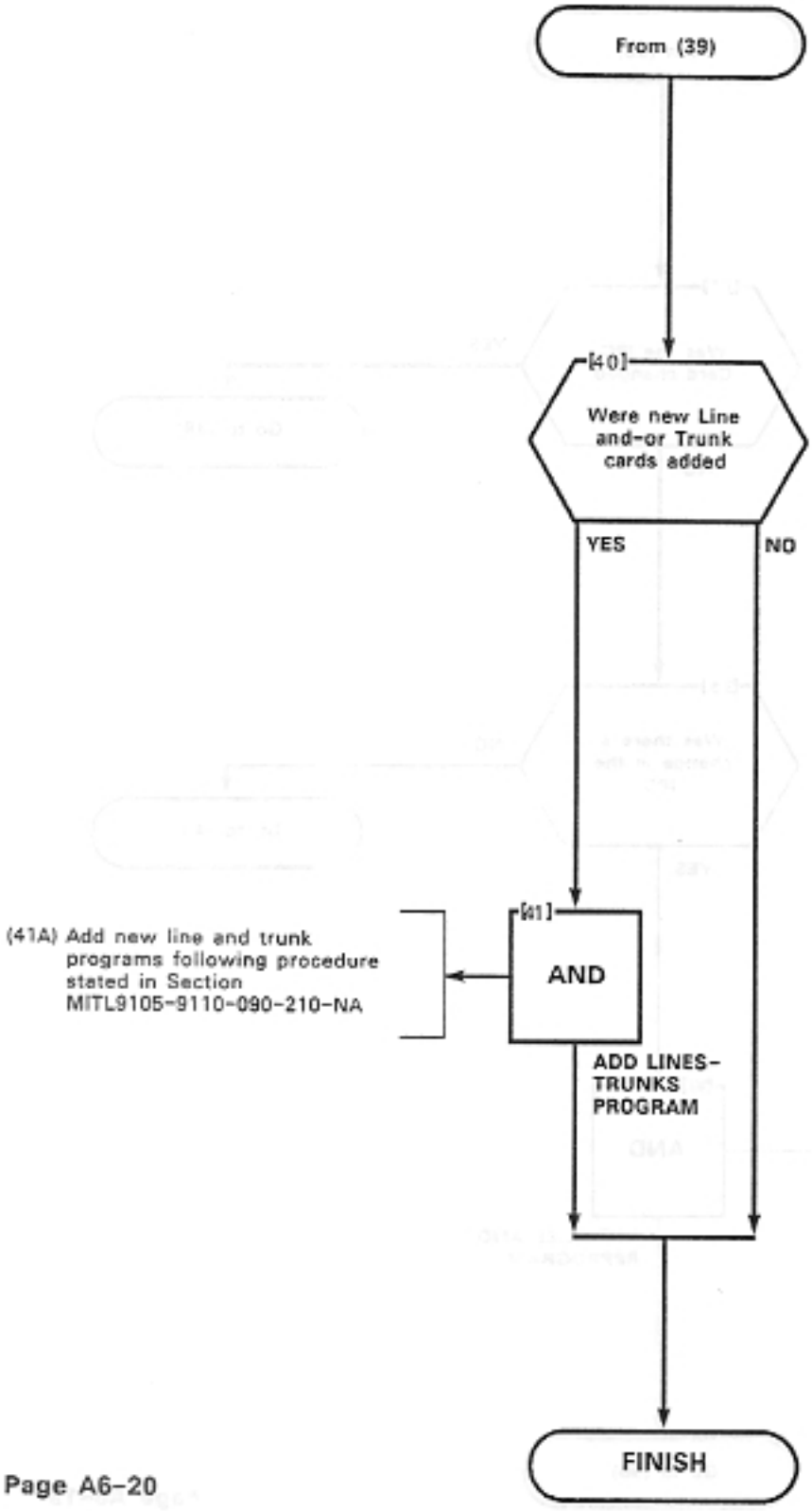

RESERVE POWER SUPPLY INSTALLATION (SX-200)
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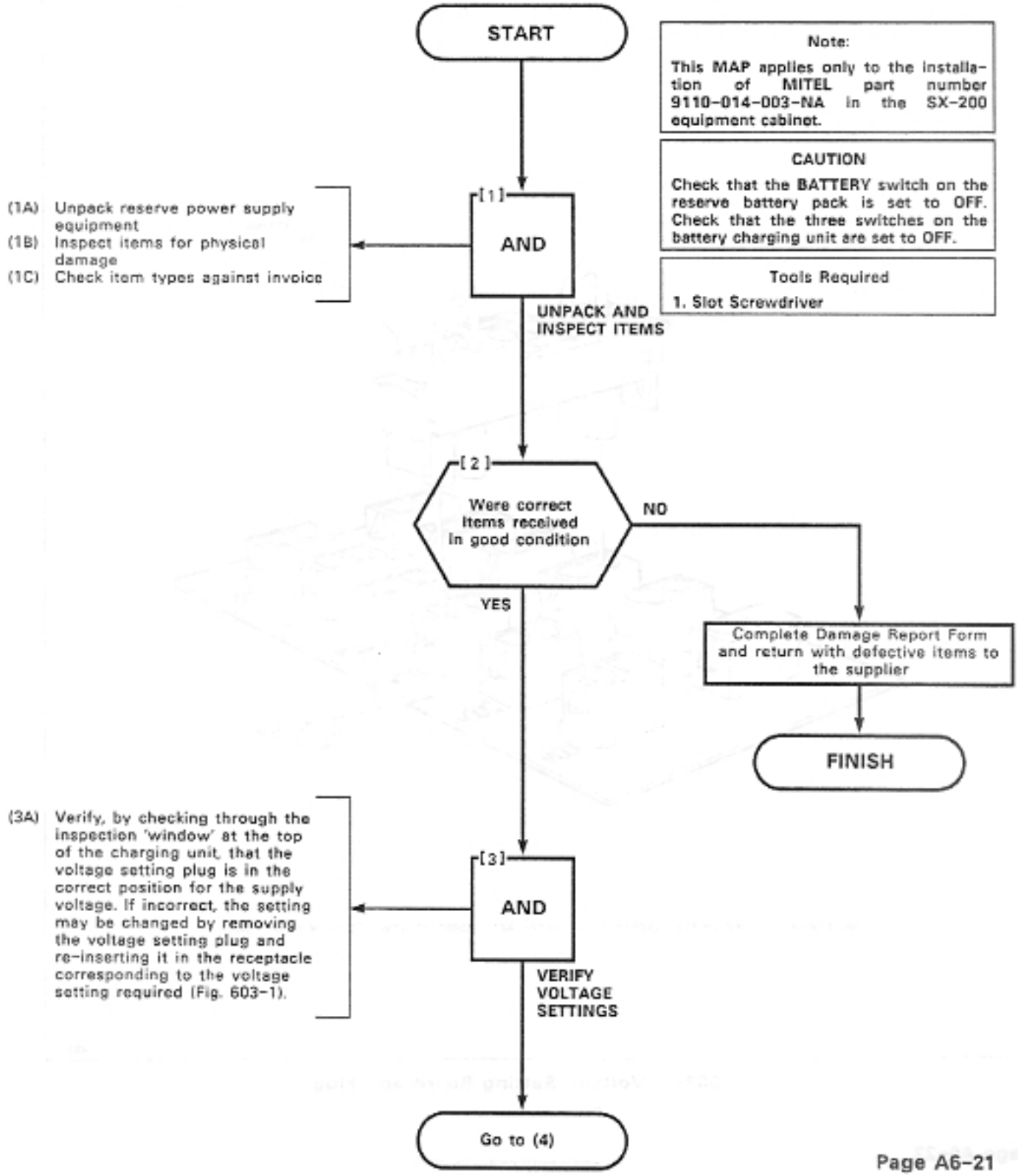

RESERVE POWER SUPPLY INSTALLATION (SX-200)
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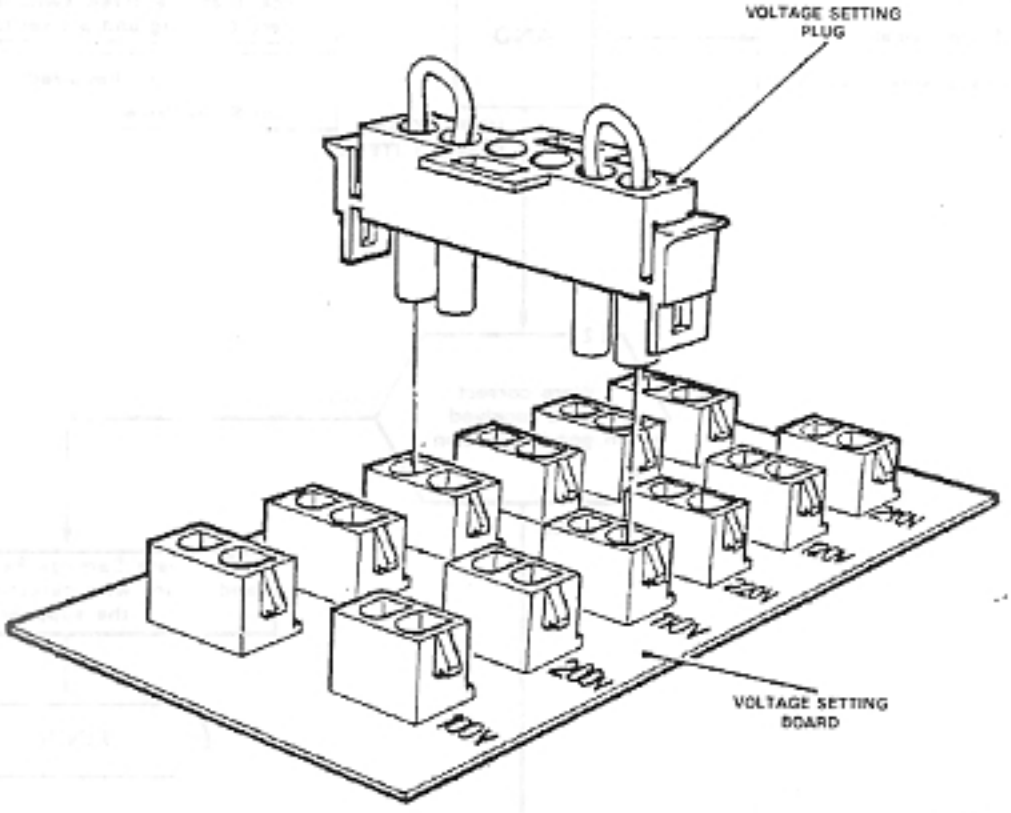

NOTE: PLUG IS LINED UP FOR INSERTION INTO RECEPTACLE CORRESPONDING TO 110 V INPUT POWER.

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Fig. 603-1 Voltage Setting Board and Plug

RESERVE POWER SUPPLY INSTALLATION (SX-200)
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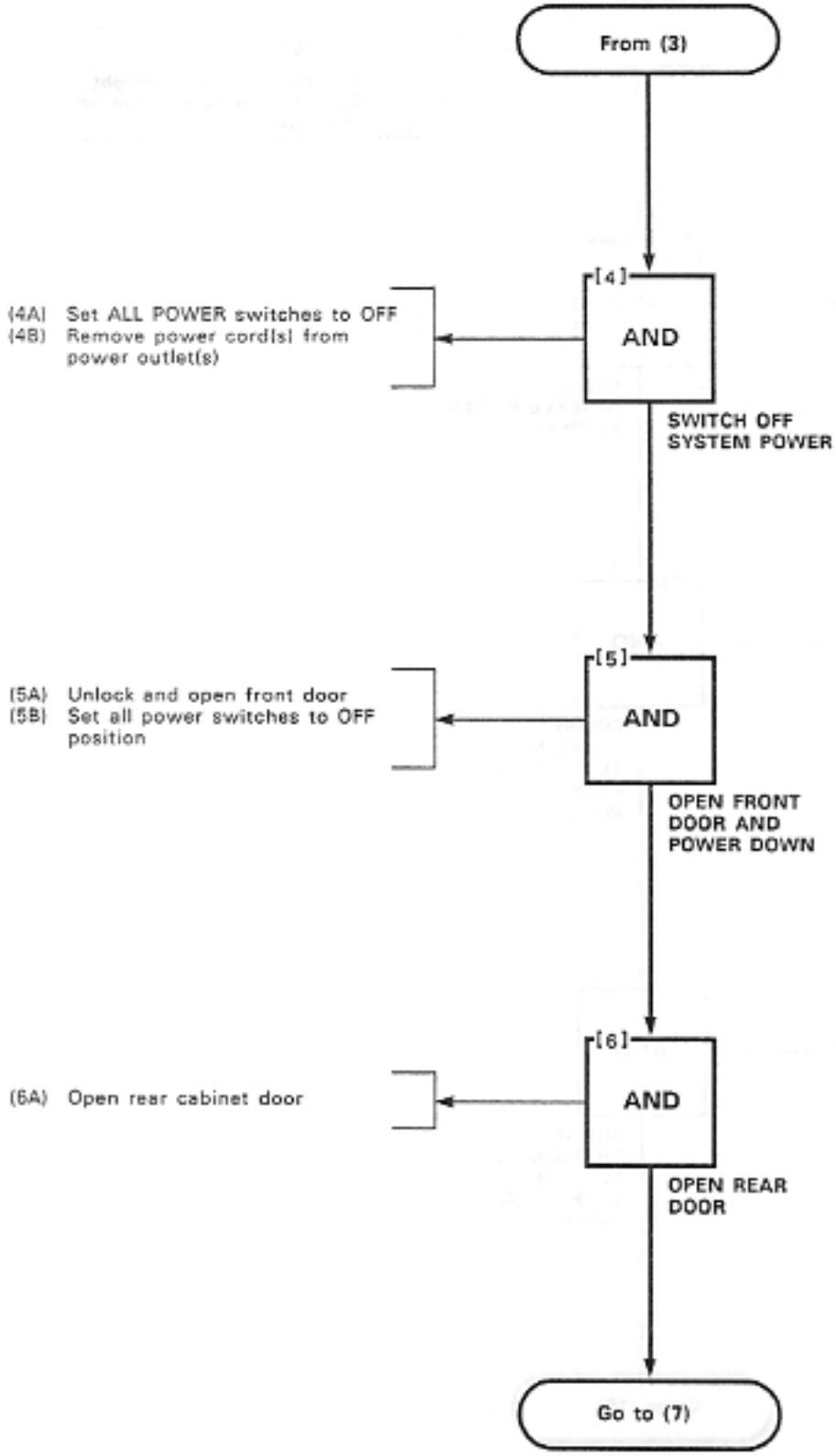

RESERVE POWER SUPPLY INSTALLATION (SX-200)
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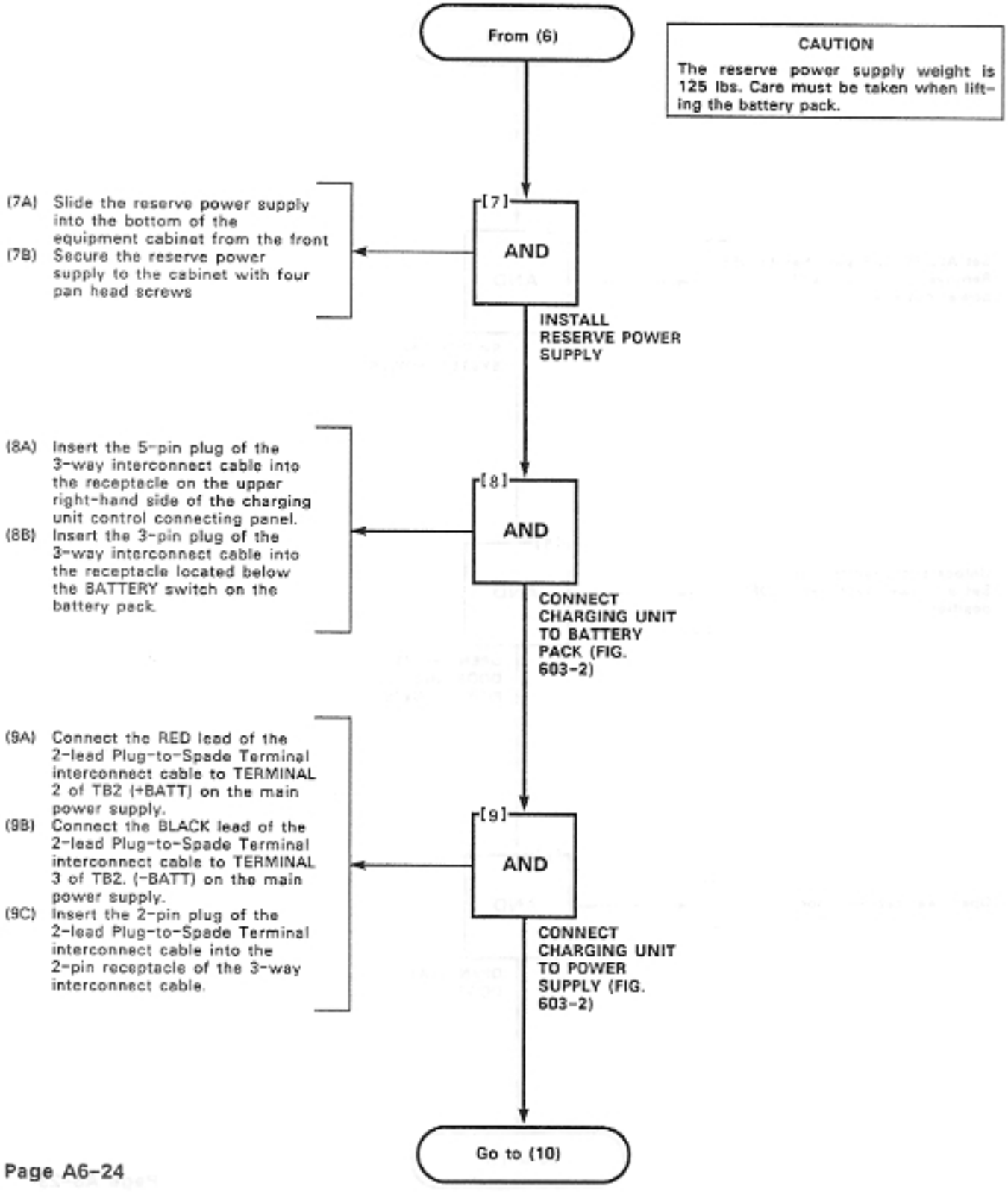

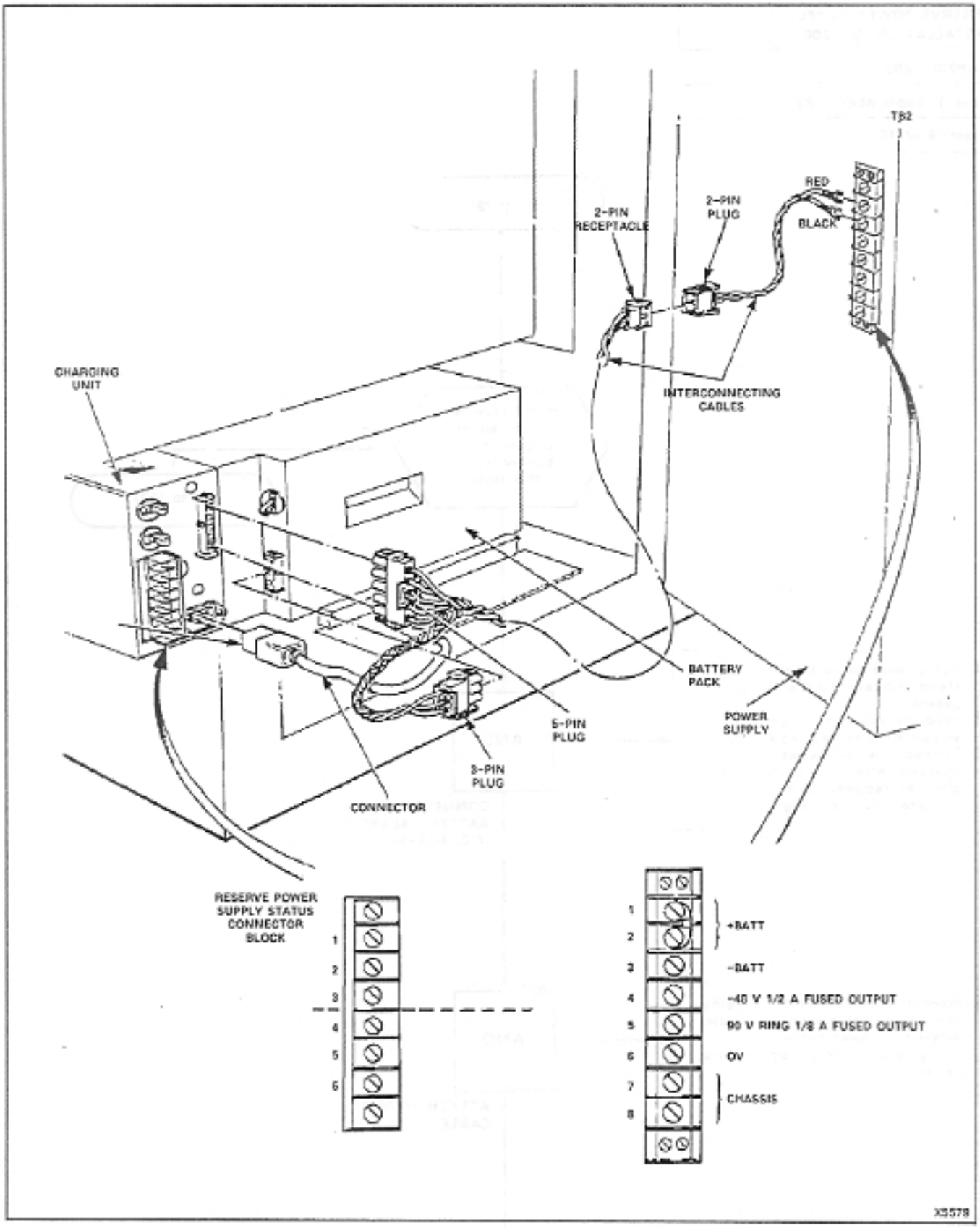

Fig. 603-2 Reserve Power Supply

RESERVE POWER SUPPLY INSTALLATION (SX-200)
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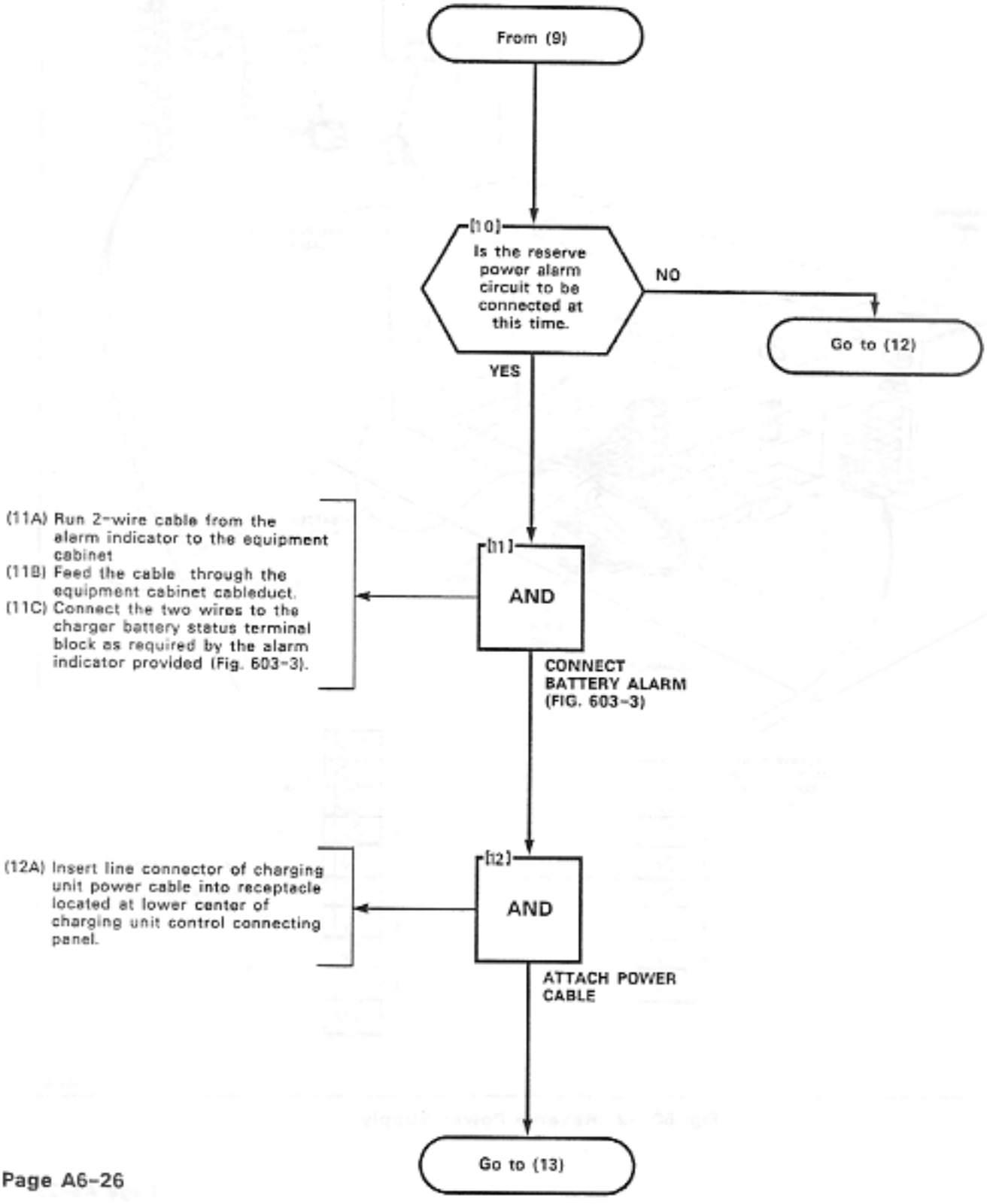

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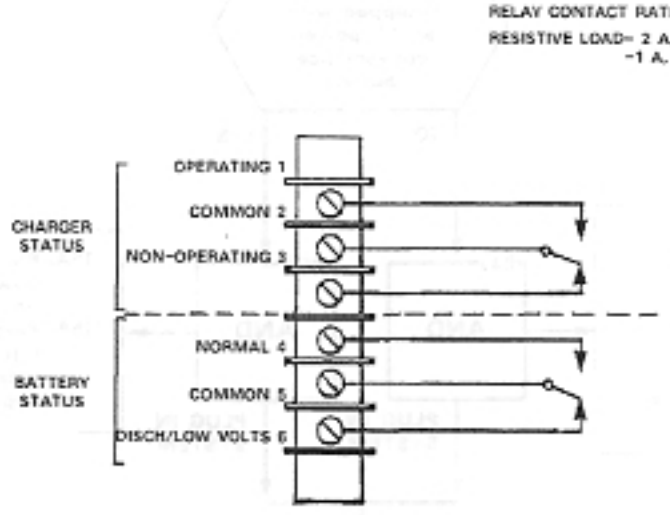

NOTES:
1. WHERE CHARGER STATUS INDICATION IS REQUIRED, USE TERMINALS 1, 2 AND 3. WHERE RESERVE BATTERY STATUS INDICATION IS REQUIRED, USE TERMINALS 4, 5 AND 6.
2. CONNECT ONE LEAD OF THE ALARM INDICATOR TO THE COMMON TERMINAL OF THE STATUS INDICATION REQUIRED (TERMINAL 2 FOR CHARGER STATUS; TERMINAL 5 FOR BATTERY STATUS)
3. WHERE ALARM INDICATOR REQUIRES A LOOP FOR ACTIVATION, CONNECT THE SECOND LEAD TO TERMINAL 3 (FOR CHARGER STATUS) OR TERMINAL 6 (FOR BATTERY STATUS).
4. WHERE ALARM INDICATOR REQUIRES A LOOP DISCONNECTION FOR ACTIVATION CONNECT THE SECOND LEAD TO TERMINAL 1 (FOR CHARGER STATUS) OR TERMINAL 4 (FOR BATTERY STATUS).

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Fig. 603-3 Alarm Indicator Connections

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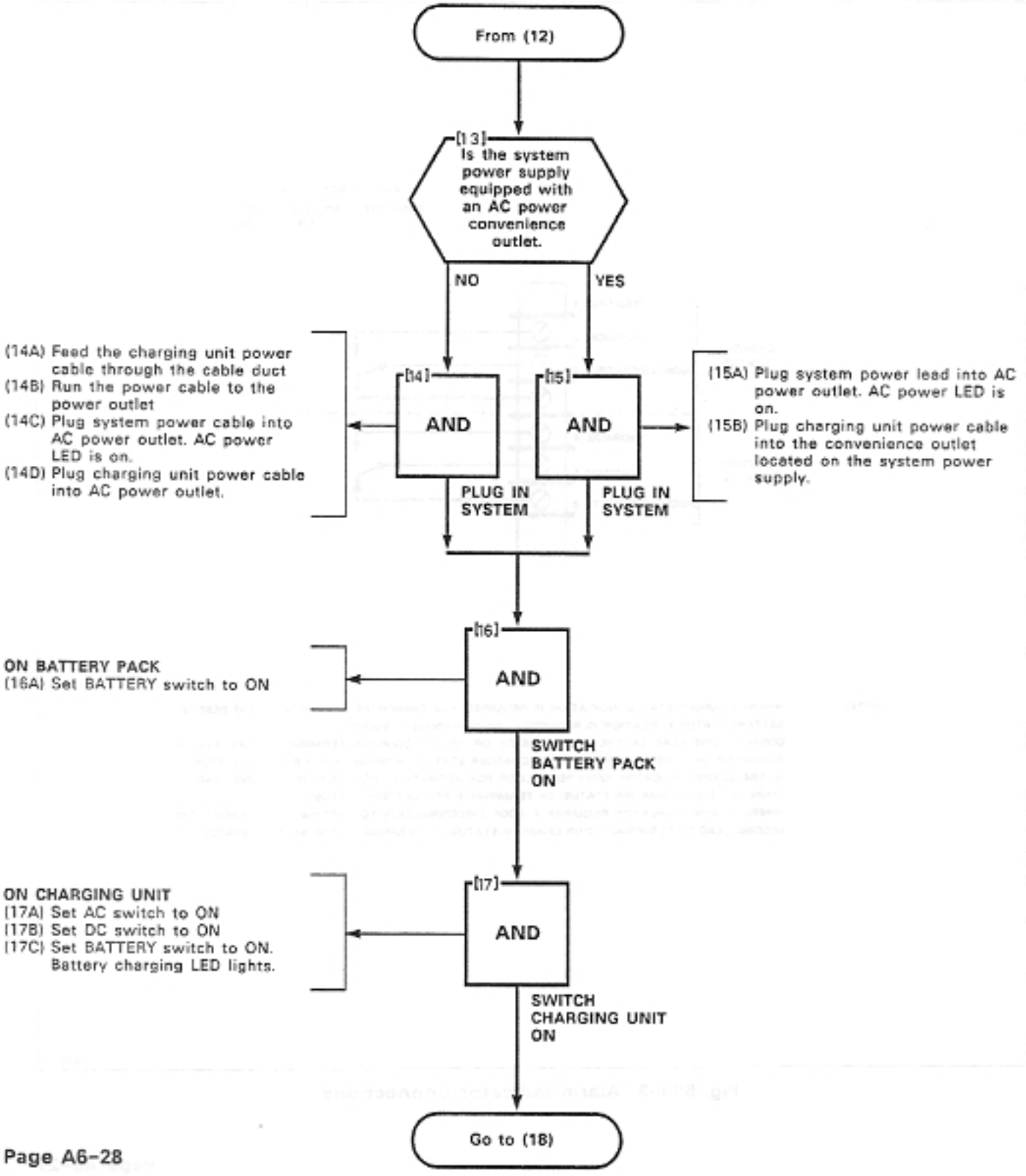

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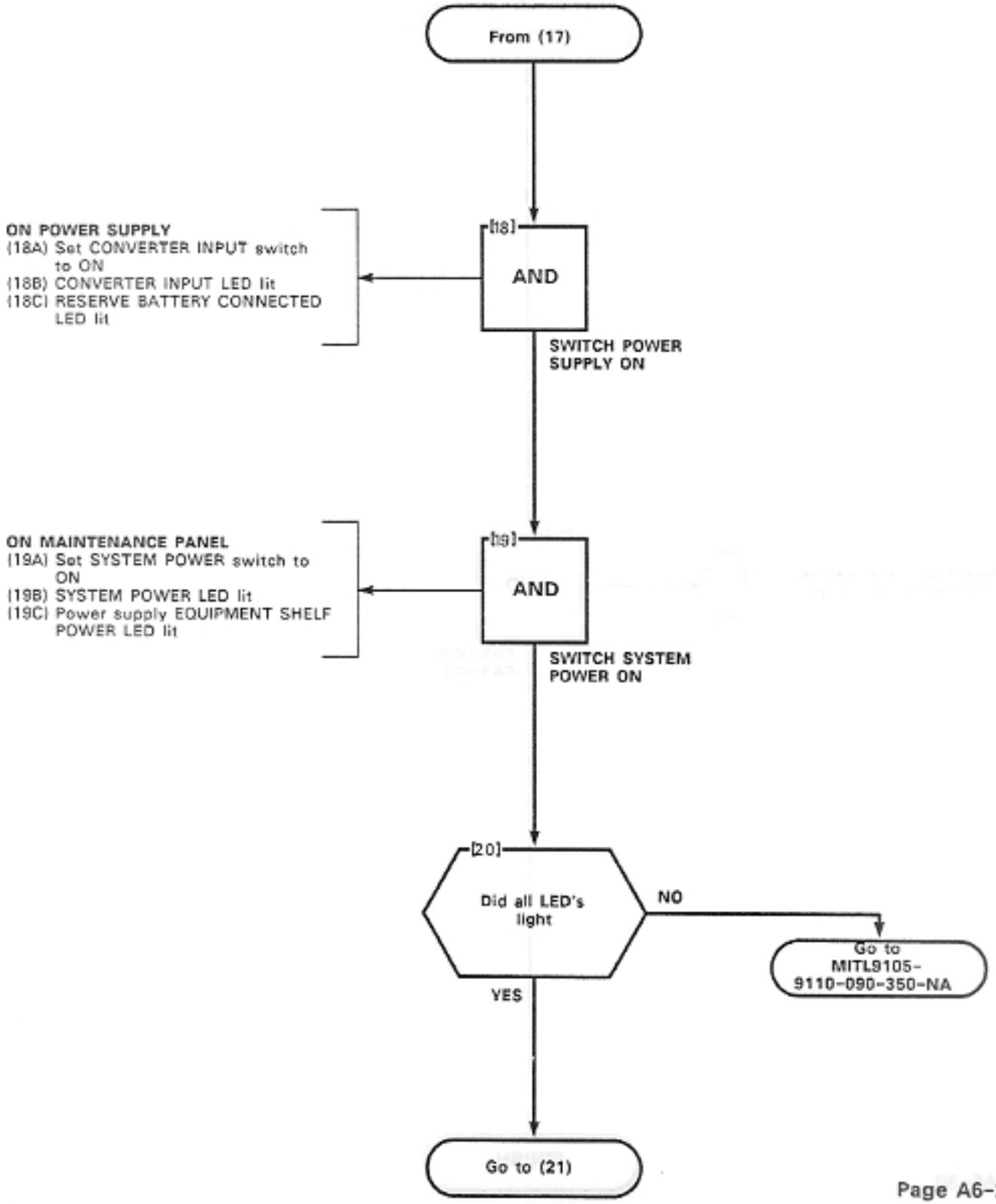

RESERVE POWER SUPPLY INSTALLATION (SX-200)
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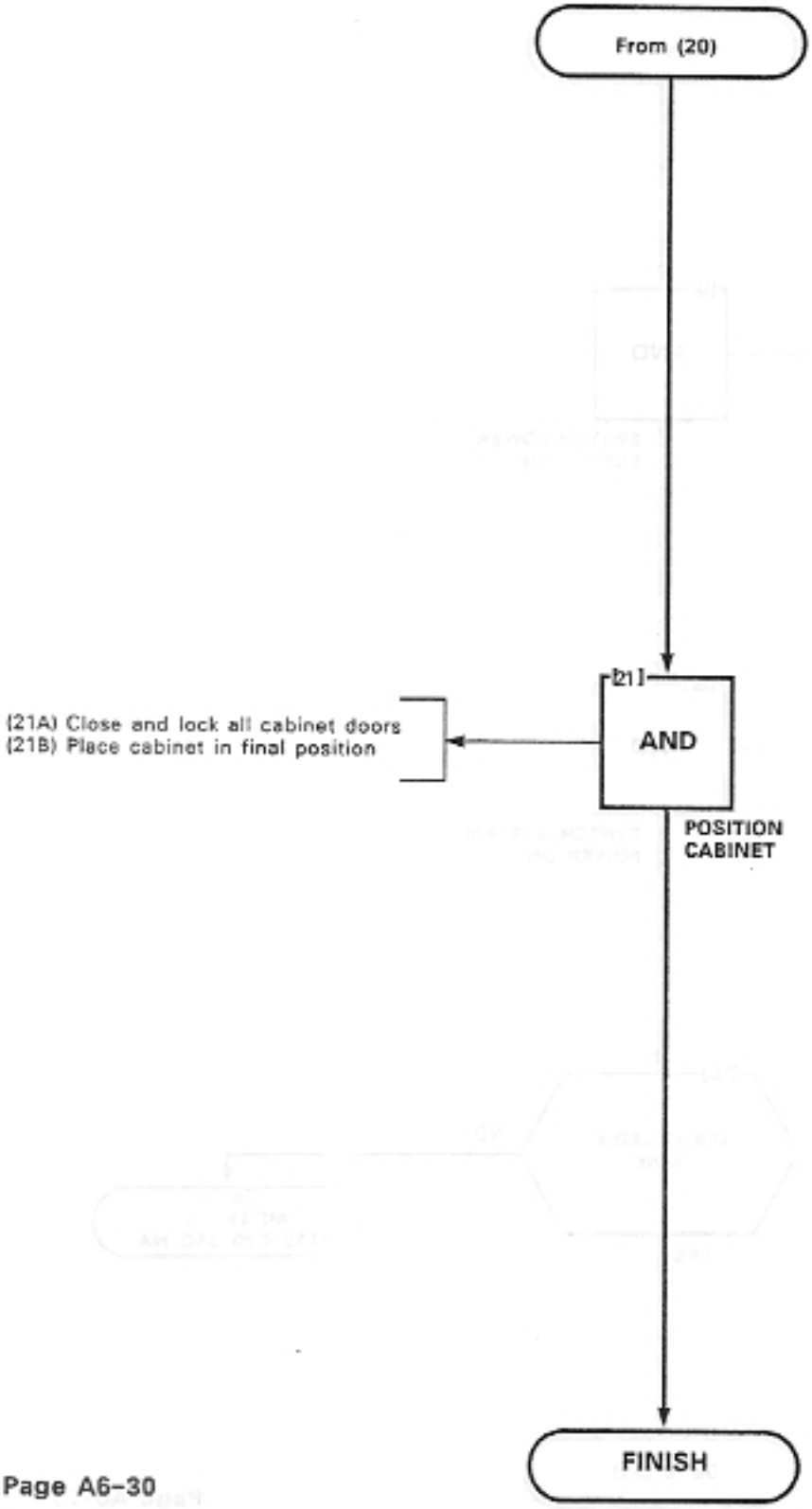

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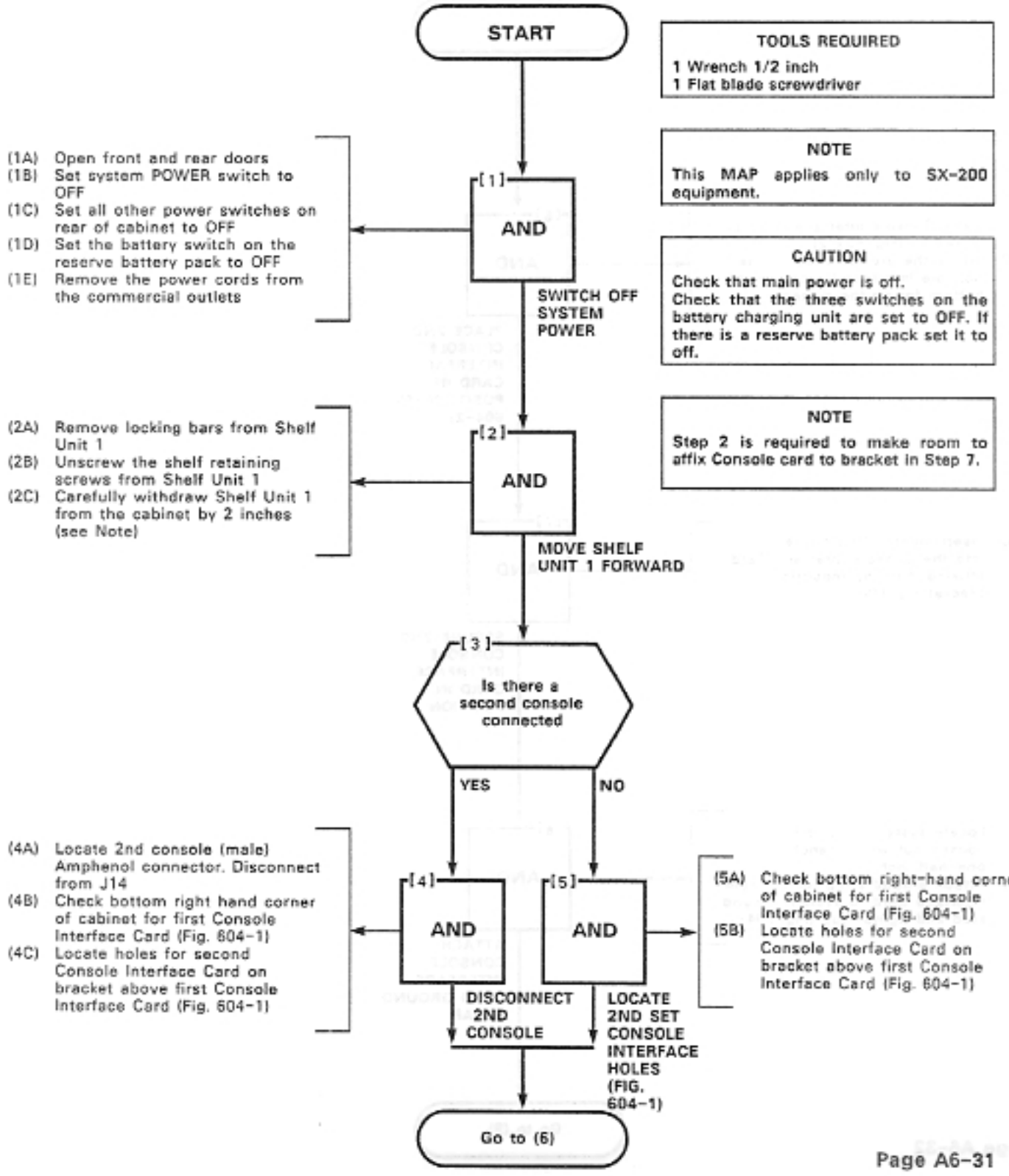

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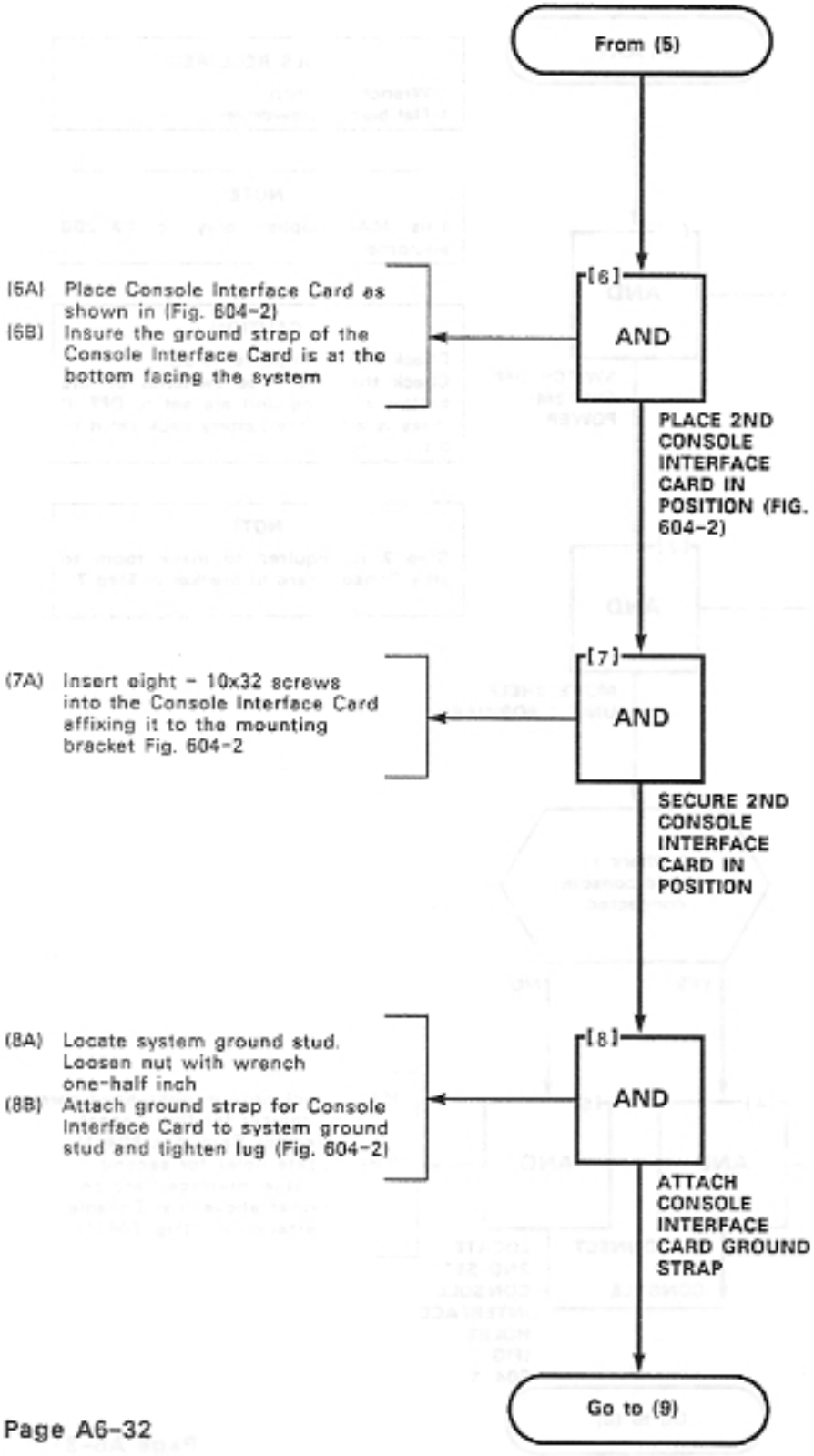

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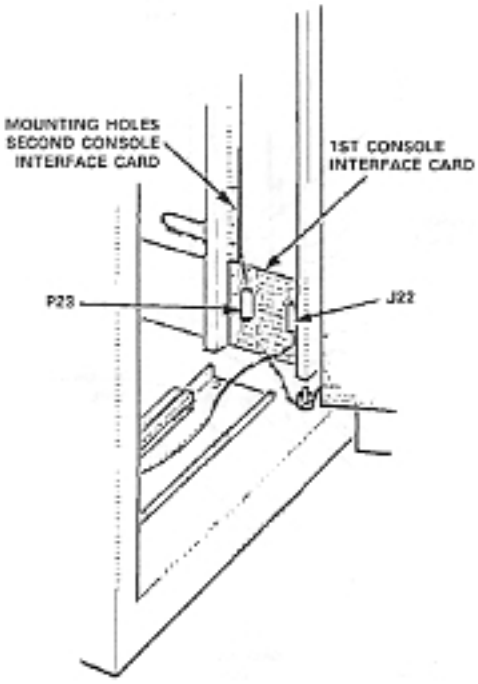

XB76R1

Fig. 604-1 1st Console Interface PCB

CONSOLE INTERFACE BOARD INSTALLATION (SX-200)
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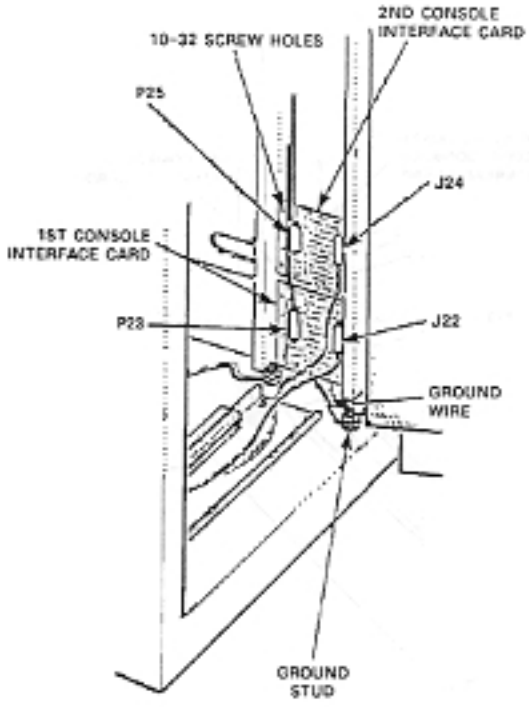

Fig. 604-2 2nd Console Interface PCB's

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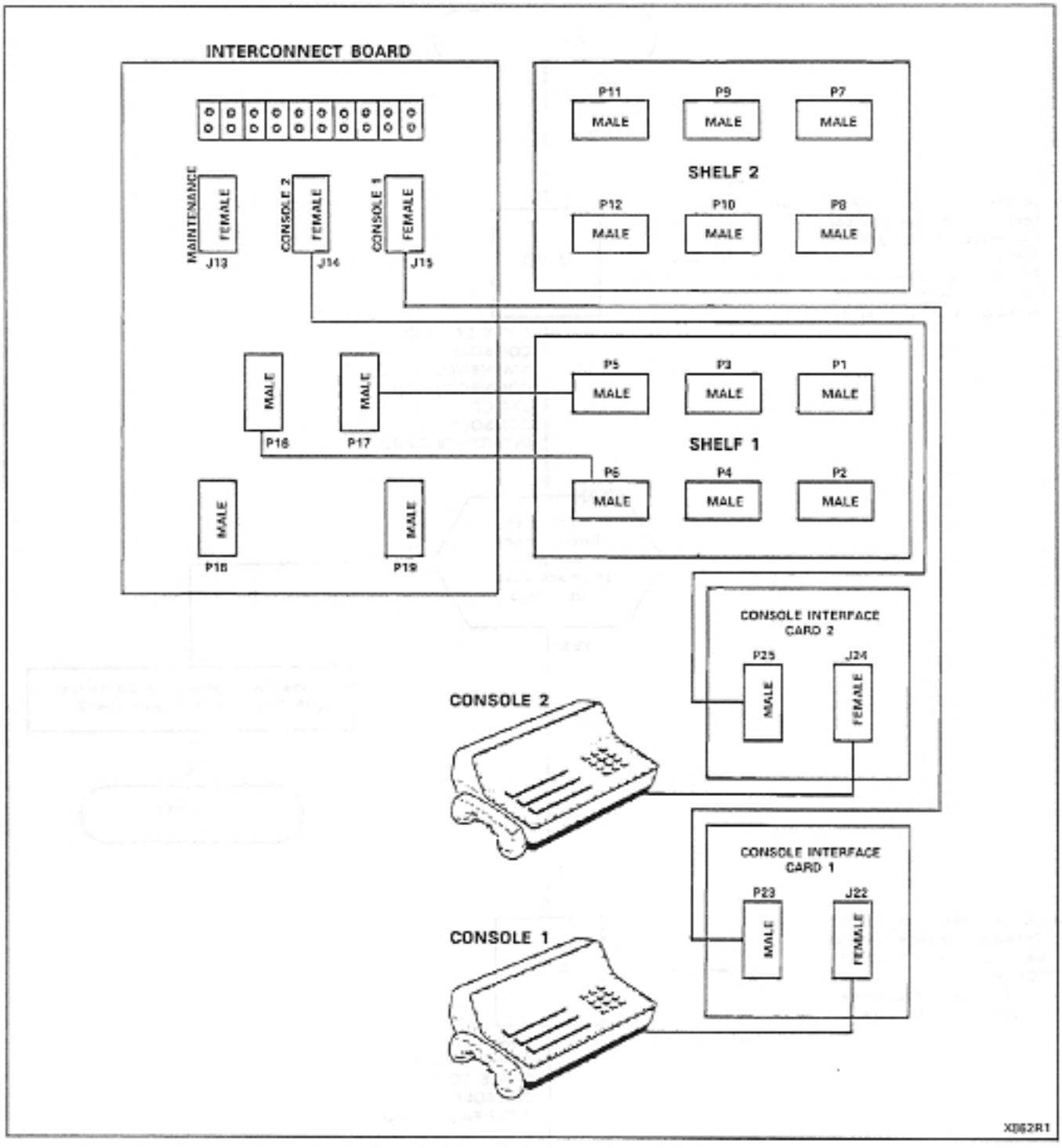

Fig. 604-3 Interconnect Wiring

CONSOLE INTERFACE BOARD INSTALLATION (SX-200)
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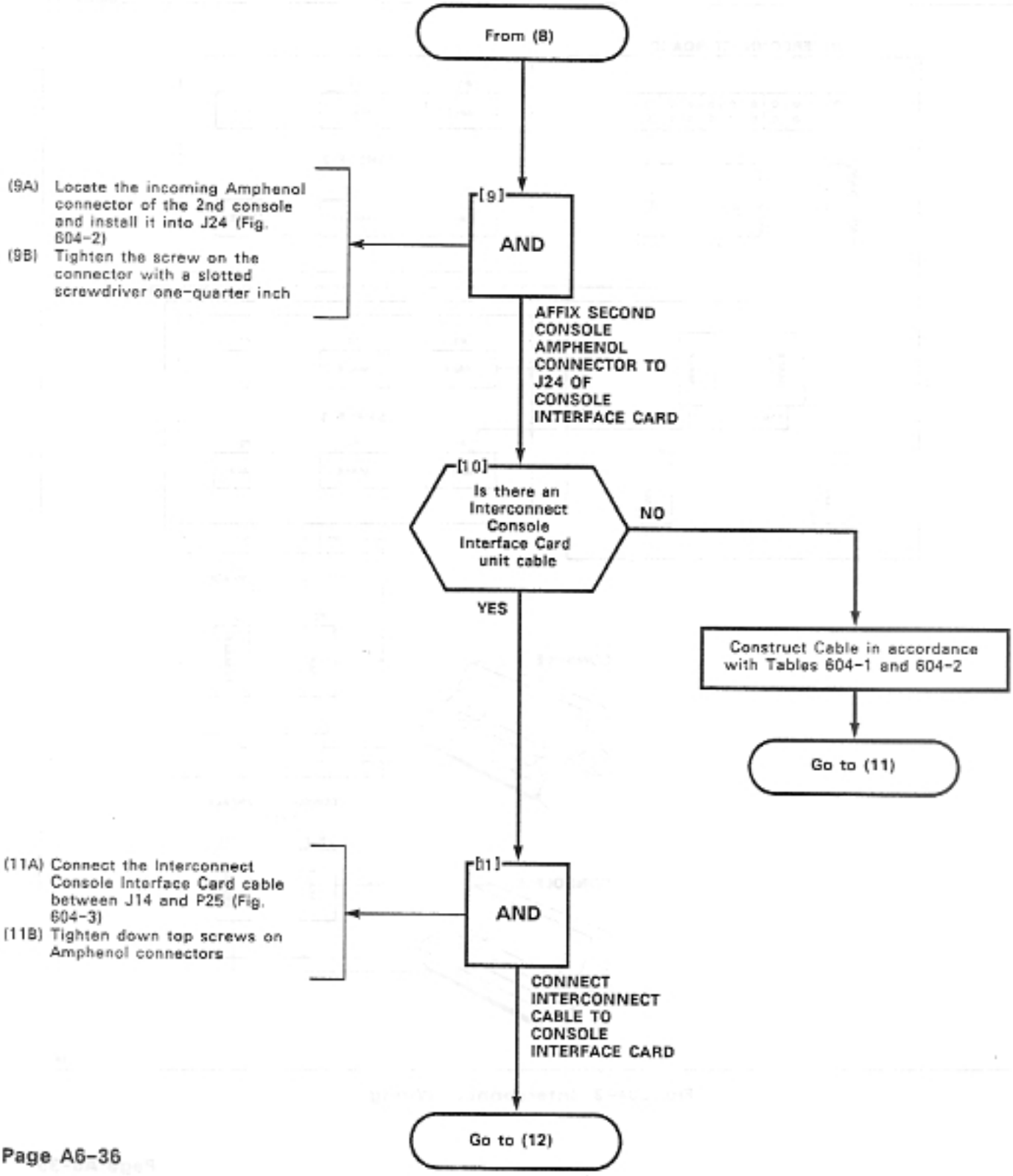

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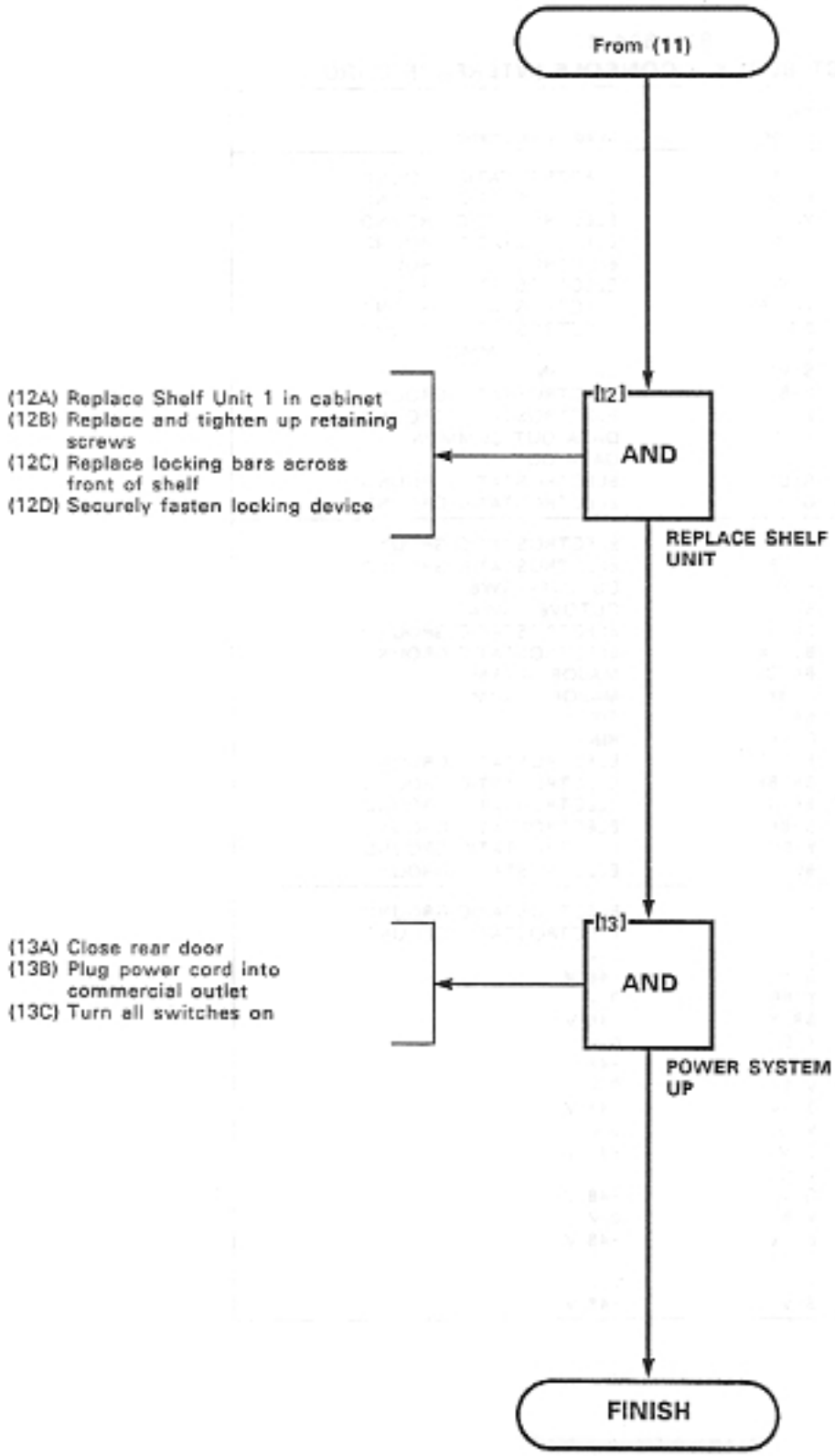

TABLE 604-1
INTERCONNECT BLOCK - CONSOLE INTERFACE CARD

Pin No.	Pair Color	Lead Designation
26	W-BL	ELECTROSTATIC GROUND
1	BL-W	ELECTROSTATIC GROUND
27	W-O	ELECTROSTATIC GROUND
2	O-W	ELECTROSTATIC GROUND
28	W-G	ELECTROSTATIC GROUND
3	G-W	ELECTROSTATIC GROUND
29	W-BR	ELECTROSTATIC GROUND
4	BR-W	ELECTROSTATIC GROUND
30	W-S	DATA IN COMMON
5	S-W	DATA IN
31	R-BL	ELECTROSTATIC GROUND
6	BL-R	ELECTROSTATIC GROUND
32	R-O	DATA OUT COMMON
7	O-R	DATA OUT
33	R-G	ELECTROSTATIC GROUND
8	G-R	ELECTROSTATIC GROUND
34	R-BR	ELECTROSTATIC GROUND
9	BR-R	ELECTROSTATIC GROUND
35	R-S	CUTOVER SWB
10	S-R	CUTOVER SWA
36	BK-BL	ELECTROSTATIC GROUND
11	BL-BK	ELECTROSTATIC GROUND
37	BK-O	MAJOR ALARM
12	O-BK	MAJOR ALARM
38	BK-G	TIP
13	G-BK	RING
39	BK-BR	ELECTROSTATIC GROUND
14	BR-BK	ELECTROSTATIC GROUND
40	BK-S	ELECTROSTATIC GROUND
15	S-BK	ELECTROSTATIC GROUND
41	Y-BL	ELECTROSTATIC GROUND
16	BL-Y	ELECTROSTATIC GROUND
42	Y-O	ELECTROSTATIC GROUND
17	O-Y	ELECTROSTATIC GROUND
43	Y-G	0 V
18	G-Y	-48 V
44	Y-BR	0 V
19	BR-Y	-48 V
45	Y-S	0 V
20	S-Y	-48 V
46	V-BL	0 V
21	BL-V	-48 V
47	V-O	0 V
22	O-V	-48 V
48	V-G	0 V
23	G-V	-48 V
49	V-BR	0 V
24	BR-V	-48 V
50	V-S	0 V
25	S-V	-48 V

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TABLE 604-2
CONSOLE WIRING

POSITION	LEAD DESIGNATION	P5	P17	J14	P25	J24
	CONSOLE 2					
	T (A)	38	38	38	38	38
	R (A)	13	13	13	13	13
	S DATA OUT T (A)	39	39	32	32	32
	S DATA OUT R (A)	14	14	7	7	7
	S DATA IN T (A)	40	40	30	30	30
	S DATA IN R (A)	15	15	5	5	5
	MAJOR ALARM TB1-5			12 37	12 37	12 37
16	-48 V TB 301			18 19 20	18 19 20	18 19 20
				21 22 23	21 22 23	21 22 23
				24 25	24 25	24 25
	0VTB301-1			43 44 45	43 44 45	43 44 45
				46 47 48	46 47 48	46 47 48
				49 50	49 50	49 50
	CUT OVER SWA			35	35	35
	CUT OVER SWB			10	10	10
	ALL UNLISTED PINS GO TO ESG TB301-3					
		P5	P17	J15	P23	J22
	CONSOLE 1					
	T (A)	42	42	38	38	38
	R (A)	17	17	13	13	13
	S DATA IN T (A)	18	18	5	5	5
	S DATA IN R (A)	43	43	30	30	30
	S DATA OUT T (A)	19	19	7	7	7
	S DATA OUT R (A)	44	44	32	32	32
	MAJOR ALARM TB1-5			12 37	12 37	12 37
17	-48 V TB 301			18 19 20	18 19 20	18 19 20
	0VTB 301-1			21 22 23	21 22 23	21 22 23
				24 25	24 25	24 25
				43 44 45	43 44 45	43 44 45
				46 47 48	46 47 48	46 47 48
				49 50	49 50	49 50
	CUT OVER SWB			35	35	35
	CUT OVER SWA			10	10	10
	ALL UNLISTED PINS GO TO ESG TB301-3					

BACKPLANE TRANSLATOR BOARD INSTALLATION
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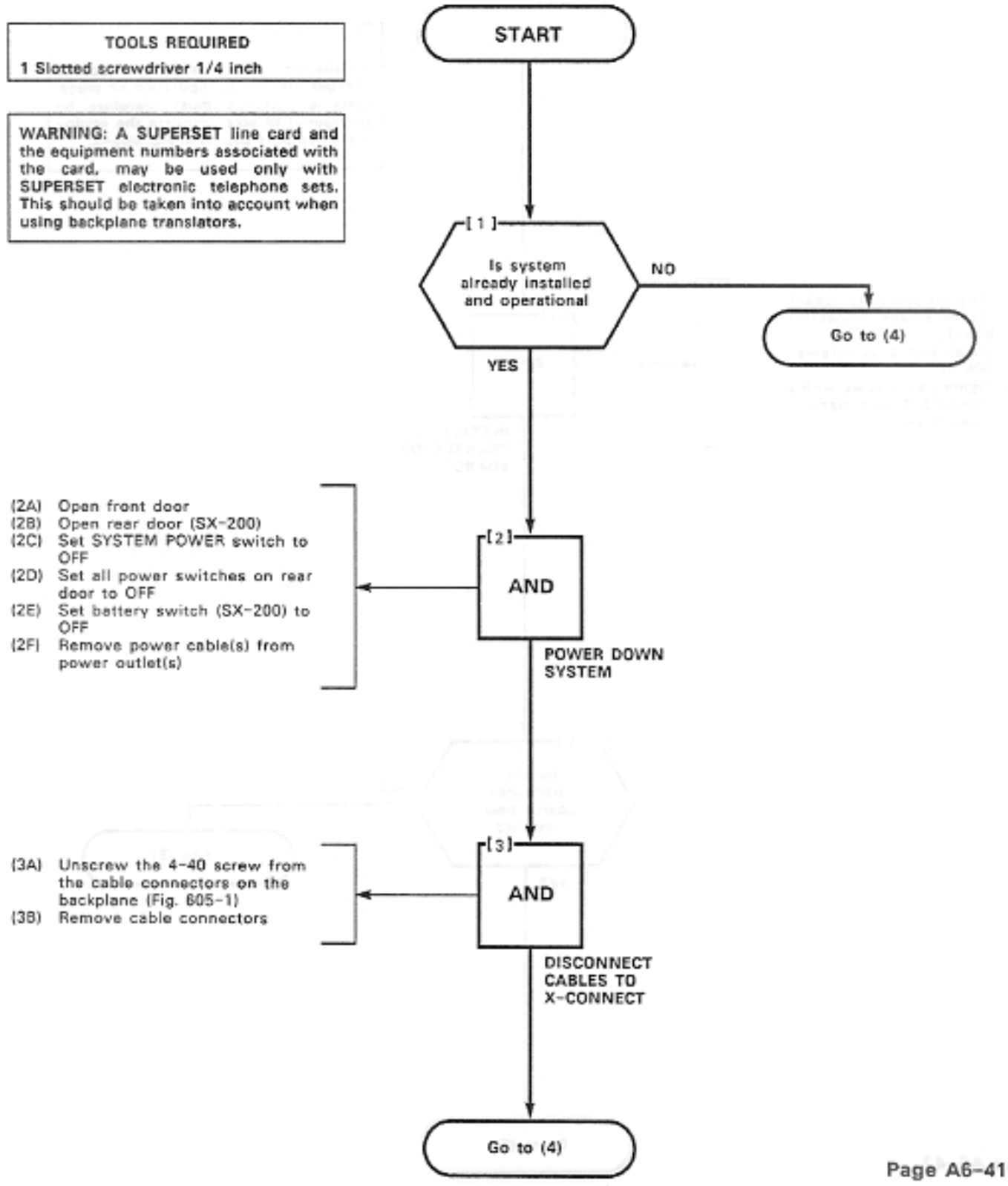
TOOLS REQUIRED
1 Slotted screwdriver 1/4 inch

WARNING: A SUPERSET line card and the equipment numbers associated with the card, may be used only with SUPERSET electronic telephone sets. This should be taken into account when using backplane translators.



BACKPLANE TRANSLATOR BOARD INSTALLATION
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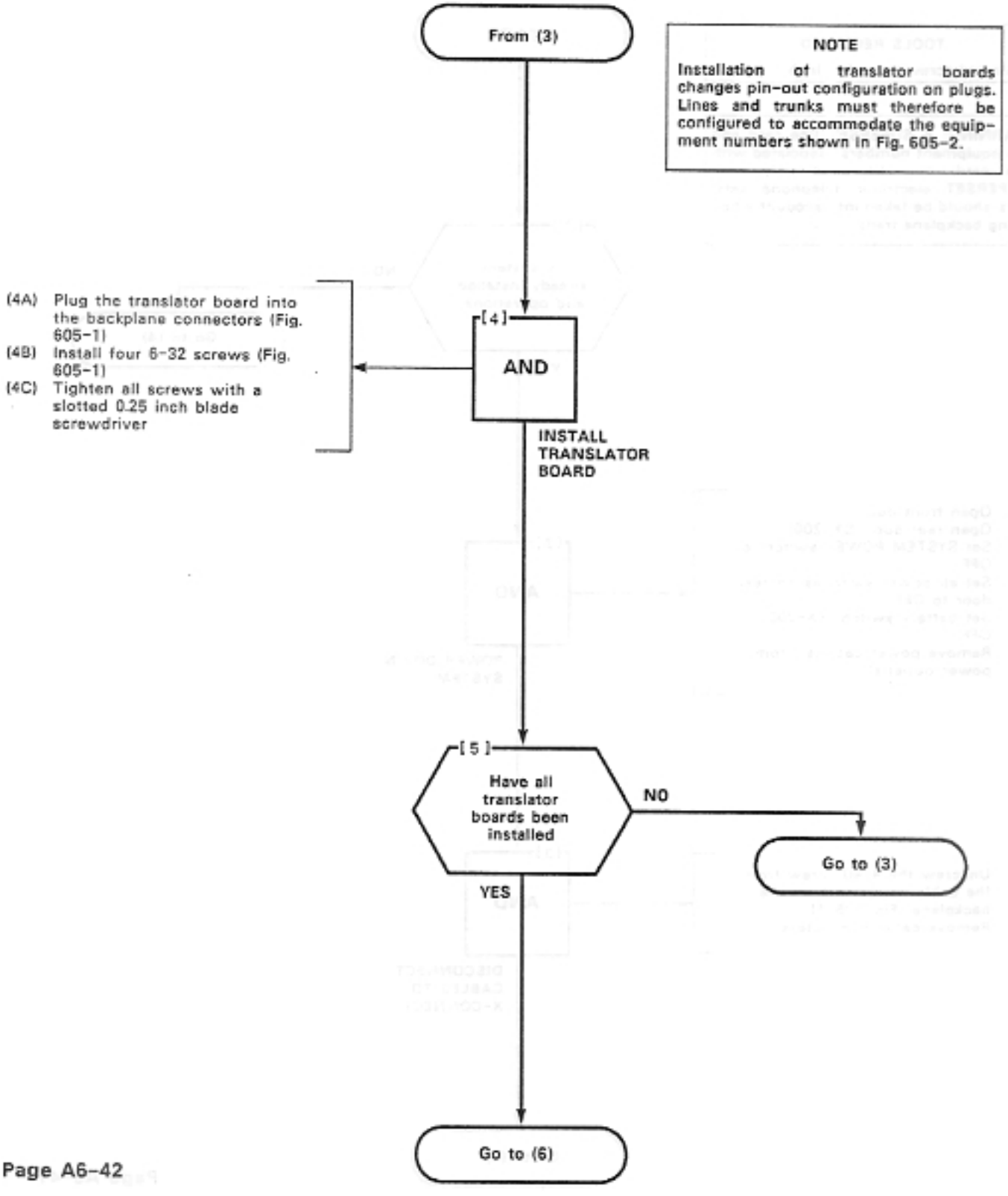

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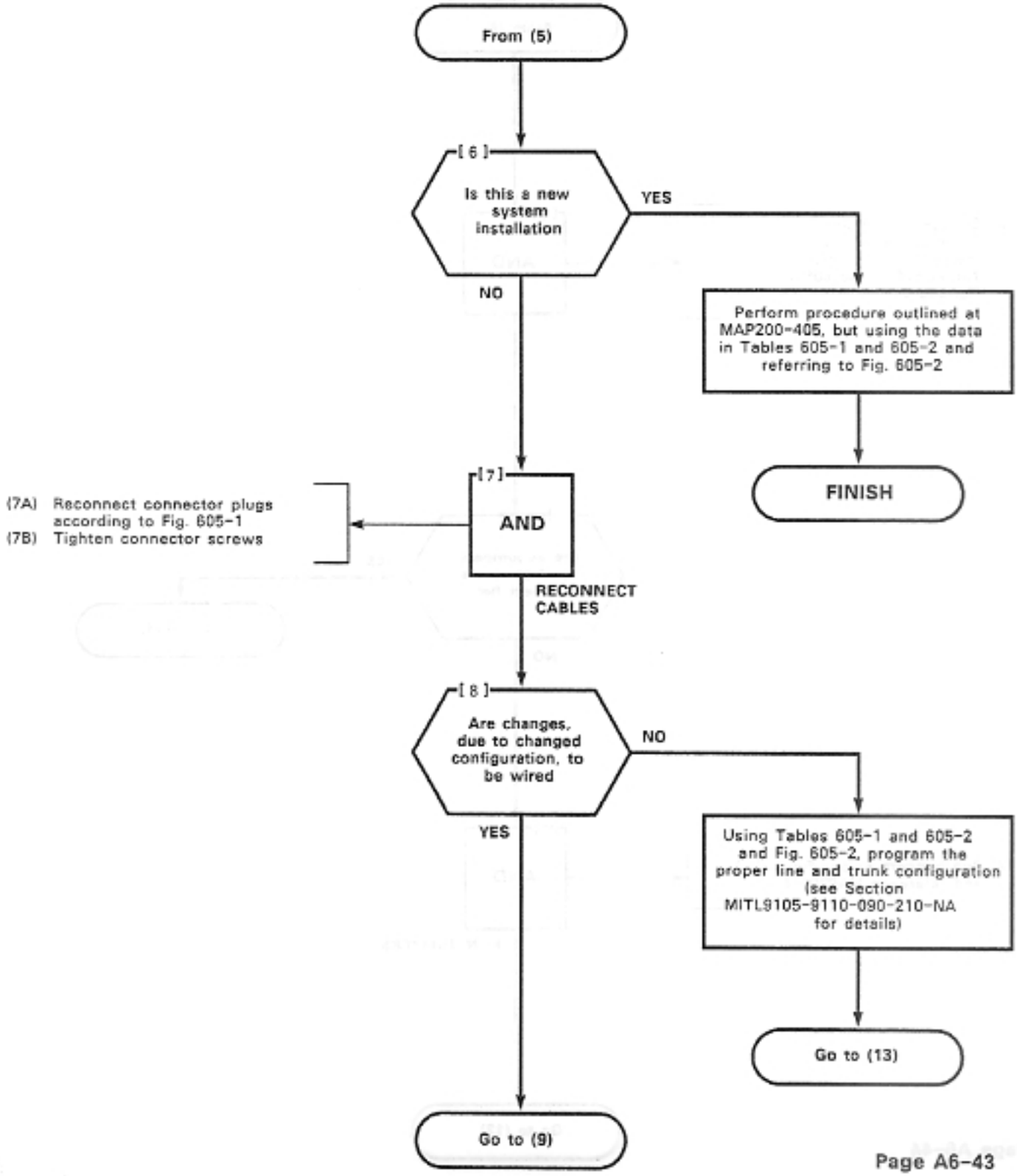

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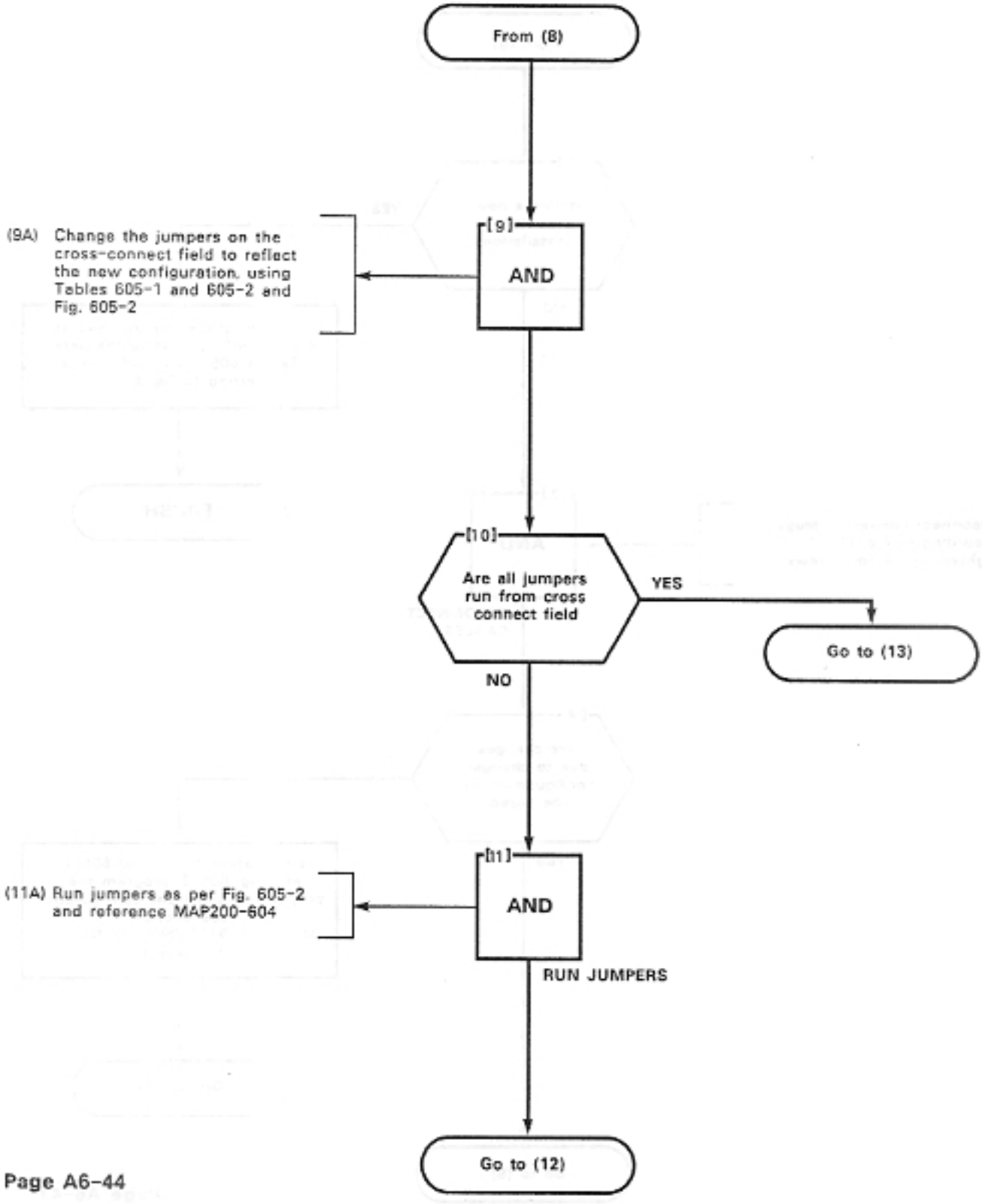

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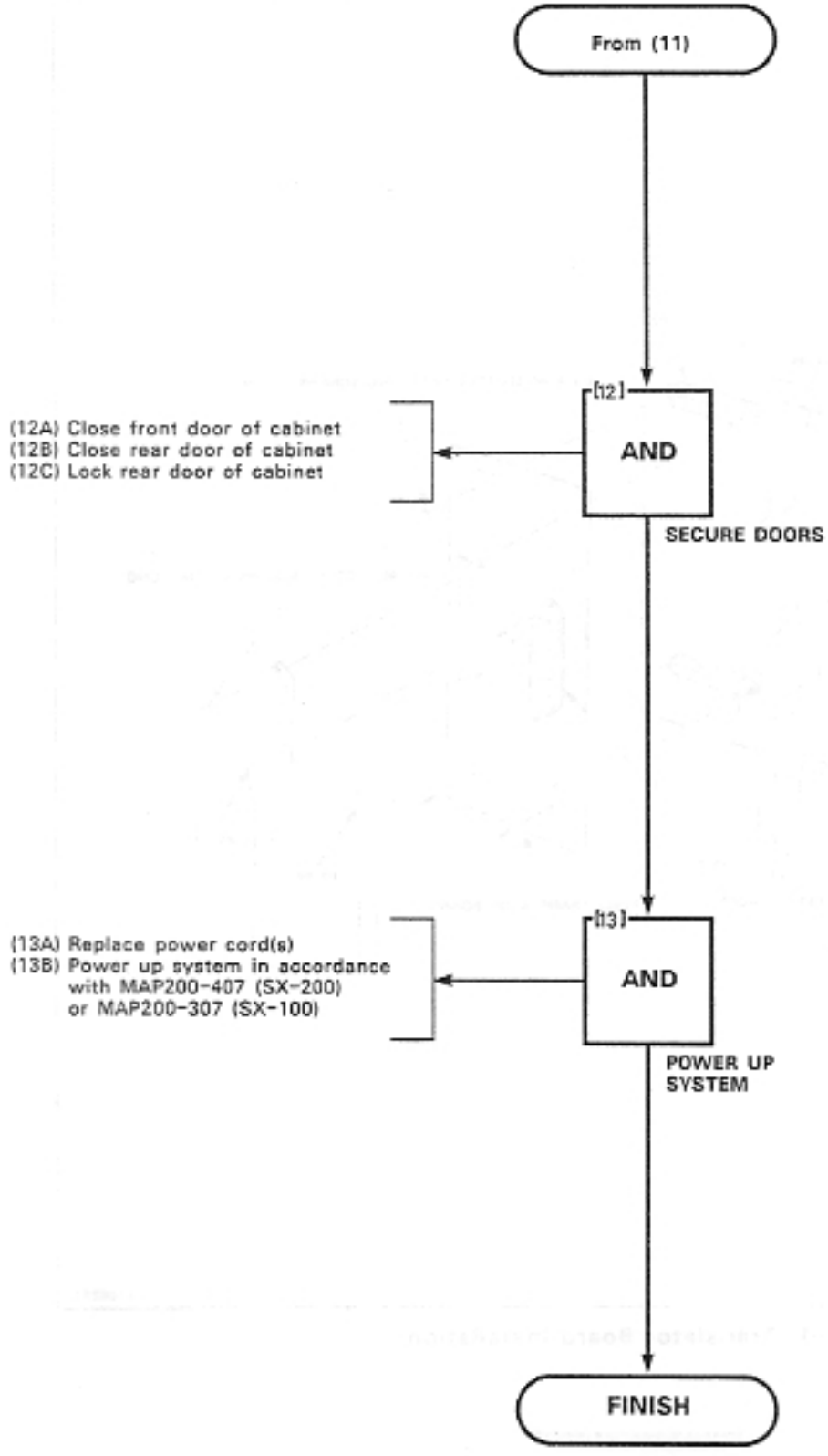

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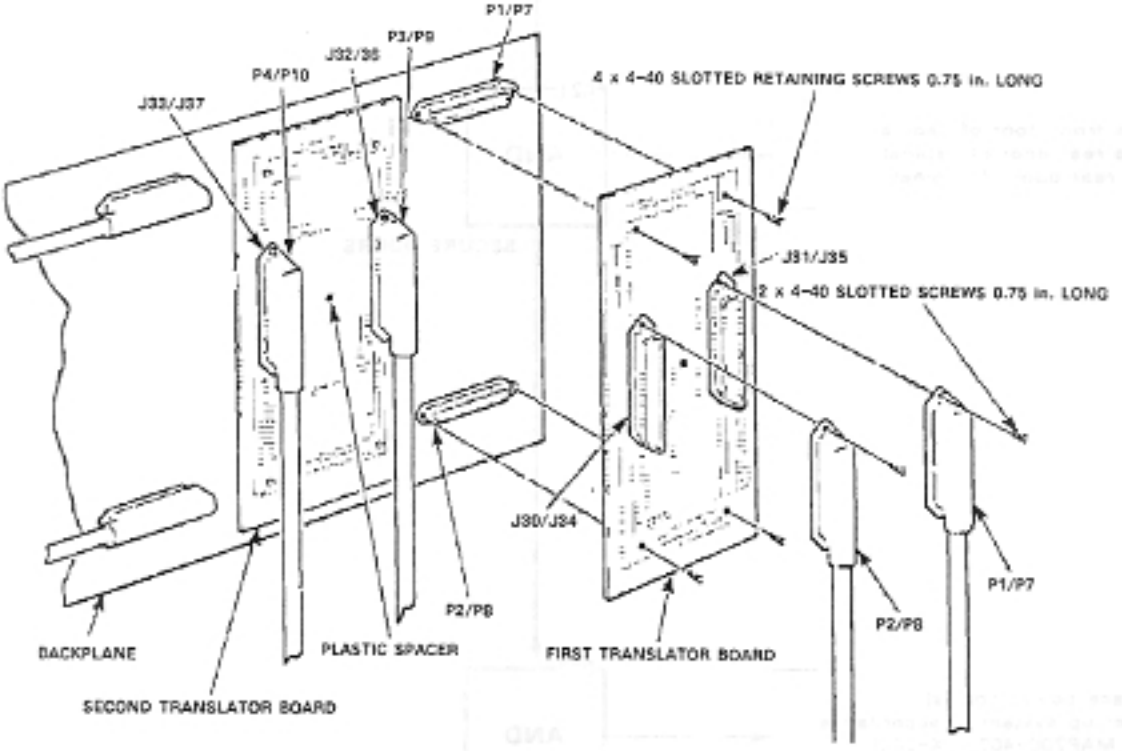

Fig. 605-1 Translator Board Installation

TABLE 605-1 BACKPLANE TRANSLATOR BOARD CONNECTIONS (SHELF 1) TO CROSS-CONNECT FIELD

		Line and Trunk Connections				Shelf 1 Translator Board Plug Numbers			
						P1	P2	P3	P4
Pin	Pair Color	Extn	CO	DID/Tie	E&M+				
26	W-BL	T1	T1	T1	T1	001	025	049	073
1	BL-W	R1	R1	R1	R1				
27	W-O	T2	XT2		TR1	002	026	050	074
2	O-W	R2	XT1		RR1				
28	W-G	T3	T2		E1	003	027	051	075
3	G-W	R3	R2		M1				
29	W-BR	T4				004	028	052	076
4	BR-W	R4							
30	W-S	T5	T3	T2	T2	005	029	053	077
5	S-W	R5	R3	R2	R2				
31	R-BL	T6	XT4		TR2	006	030	054	078
6	BL-R	R6	XT3		RR2				
32	R-O	T7	T4		E2	007	031	055	079
7	O-R	R7	R4		M2				
33	R-G	T8				008	032	056	080
8	G-R	R8							
34	R-BR	T1	T1	T1	T1	009	033	057	081
9	BR-R	R1	R1	R1	R1				
35	R-S	T2	XT2		TR1	010	034	058	082
10	S-R	R2	XT1		RR1				
36	BK-BL	T3	T2		E1	011	035	059	083
11	BL-BK	R3	R2		M1				
37	BK-O	T4				012	036	060	084
12	O-BK	R4							
38	BK-G	T5	T3	T2	T2	013	037	061	085
13	G-BK	R5	R3	R2	R2				
39	BK-BR	T6	XT4		TR2	014	038	062	086
14	BR-BK	R6	XT3		RR2				
40	BK-S	T7	T4		E2	015	039	063	087
15	S-BK	R7	R4		M2				
41	Y-BL	T8				016	040	064	088
16	BL-Y	R8							
42	Y-O	T1	T1	T1	T1	017	041	065	089
17	O-Y	R1	R1	R1	R1				
43	Y-G	T2	XT2		TR1	018	042	066	090
18	G-Y	R2	XT1		RR1				
44	Y-BR	T3	T2		E1	019	043	067	091
19	BR-Y	R3	R2		M1				
45	Y-S	T4				020	044	068	092
20	S-Y	R4							
46	V-BL	T5	T3	T2	T2	021	045	069	093
21	BL-V	R5	R3	R2	R2				
47	V-O	T6	XT4		TR2	022	046	070	094
22	O-V	R6	XT3		RR2				
48	V-G	T7	T4		E2	023	047	071	095
23	G-V	R7	R4		M2				
49	V-BR	T8				024	048	072	096
24	BR-V	R8							
50	V-S	SPARE							
25	S-V	SPARE							

Equipment Numbers Card Position 1
Equipment Numbers Card Position 2
Equipment Numbers Card Position 3
Equipment Numbers Card Position 4
Equipment Numbers Card Position 5
Equipment Numbers Card Position 6
Equipment Numbers Card Position 7
Equipment Numbers Card Position 8
Equipment Numbers Card Position 9
Equipment Numbers Card Position 10
Equipment Numbers Card Position 11
Equipment Numbers Card Position 12 (See Note)

NOTE: Position 12 can be used for lines, trunks or receiver #4 card.
+ For 2-Wire E&M Trunk operation DO NOT connect RR and TR leads.

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TABLE 605-2 BACKPLANE TRANSLATOR BOARD CONNECTIONS (SHELF 2) TO CROSS-CONNECT FIELD

Pin	Pair Color	Line and Trunk Connections				Shelf 2 Translator Board Plug Numbers			
		Extn	CO	DID/Tie	E&M+	P7	P8	P9	P10
26	W-BL	T1	T1	T1	T1	161	185	209	233
1	BL-W	R1	R1	R1	R1				
27	W-O	T2	XT2		TR1	162	186	210	234
2	O-W	R2	XT1		RR1				
28	W-G	T3	T2		E1	163	187	211	235
3	G-W	R3	R2		M1				
29	W-BR	T4				164	188	212	236
4	BR-W	R4							
30	W-S	T5	T3	T2	T2	165	189	213	237
5	S-W	R5	R3	R2	R2				
31	R-BL	T6	XT4		TR2	166	190	214	238
6	BL-R	R6	XT3		RR2				
32	R-O	T7	T4		E2	167	191	215	239
7	O-R	R7	R4		M2				
33	R-G	T8				168	192	216	240
8	G-R	R8							
34	R-BR	T1	T1	T1	T1	169	193	217	241
9	BR-R	R1	R1	R1	R1				
35	R-S	T2	XT2		TR1	170	194	218	242
10	S-R	R2	XT1		RR1				
36	BK-BL	T3	T2		E1	171	195	219	243
11	BL-BK	R3	R2		M1				
37	BK-O	T4				172	196	220	244
12	O-BK	R4							
38	BK-G	T5	T3	T2	T2	173	197	221	245
13	G-BK	R5	R3	R2	R2				
39	BK-BR	T6	XT4		TR2	174	198	222	246
14	BR-BK	R6	XT3		RR2				
40	BK-S	T7	T4		E2	175	199	223	247
15	S-BK	R7	R4		M2				
41	Y-BL	T8				176	200	224	248
16	BL-Y	R8							
42	Y-O	T1	T1	T1	T1	177	201	225	249
17	O-Y	R1	R1	R1	R1				
43	Y-G	T2	XT2		TR1	178	202	226	250
18	G-Y	R2	XT1		RR1				
44	Y-BR	T3	T2		E1	179	203	227	251
19	BR-Y	R3	R2		M1				
45	Y-S	T4				180	204	228	252
20	S-Y	R4							
46	V-BL	T5	T3	T2	T2	181	205	229	253
21	BL-V	R5	R3	R2	R2				
47	V-O	T6	XT4		TR2	182	206	230	254
22	O-V	R6	XT3		RR2				
48	V-G	T7	T4		E2	183	207	231	255
23	G-V	R7	R4		M2				
49	V-BR	T8				184	208	232	256
24	BR-V	R8							
50	V-S	SPARE							
25	S-V	SPARE							

Equipment Numbers Card Position 1
Equipment Numbers Card Position 2
Equipment Numbers Card Position 3
Equipment Numbers Card Position 4
Equipment Numbers Card Position 5
Equipment Numbers Card Position 6
Equipment Numbers Card Position 7
Equipment Numbers Card Position 8
Equipment Numbers Card Position 9
Equipment Numbers Card Position 10
Equipment Numbers Card Position 11
Equipment Numbers Card Position 12 (See Note)

NOTE: Position 12 can be used for lines, trunks or receiver #4 card.
+ For 2-Wire E&M Trunk operation DO NOT connect RR and TR leads.

HARDWARE/EQUIPMENT NUMBERING

HARDWARE POSITION NUMBER	PLUG 7			PLUG 8			PLUG 9			PLUG 10		
	161	169	177	185	193	201	209	217	225	233	241	249
	162	170	178	186	194	202	210	218	226	234	242	250
	163	171	179	187	195	203	211	219	227	235	243	251
	164	172	180	188	196	204	212	220	228	236	244	252
	165	173	181	189	197	205	213	221	229	237	245	253
	166	174	182	190	198	206	214	222	230	238	246	254
	167	175	183	191	199	207	215	223	231	239	247	255
	168	176	184	192	200	208	216	224	232	240	248	256
	1	2	3	4	5	6	7	8	9	10	11	12

SHELF 2 (SX-200)

HARDWARE POSITION NUMBER	PLUG P1			PLUG P2			PLUG P3			PLUG P4		
	001	009	017	025	033	041	049	057	065	073	081	089
	002	010	018	026	034	042	050	058	066	074	082	090
	003	011	019	027	035	043	051	059	067	075	083	091
	004	012	020	028	036	044	052	060	068	076	084	092
	005	013	021	029	037	045	053	061	069	077	085	093
	006	014	022	030	038	046	054	062	070	078	086	094
	007	015	023	031	039	047	055	063	071	079	087	095
	008	016	024	032	040	048	056	064	072	080	088	096
	1	2	3	4	5	6	7	8	9	10	11	12

SHELF 1 SX-100/SX-200

NOTE: EQUIPMENT POSITION 001 IS RESERVED FOR THE TEST LINE AND MUST THEREFORE BE EQUIPPED WITH A LINE CARD. TRUNK EQUIPMENT NUMBER IS SAME AS INDIVIDUAL TRUNK ACCESS CODE.
EQUIPMENT NUMBERS ASSIGNED TO SUPERSET 4 LINE CARDS CAN ONLY BE USED WITH SUPERSET 4 ELECTRONIC TELEPHONE SETS.

X1318

Fig. 605-2 Backplane Translator Board Plug Appearances

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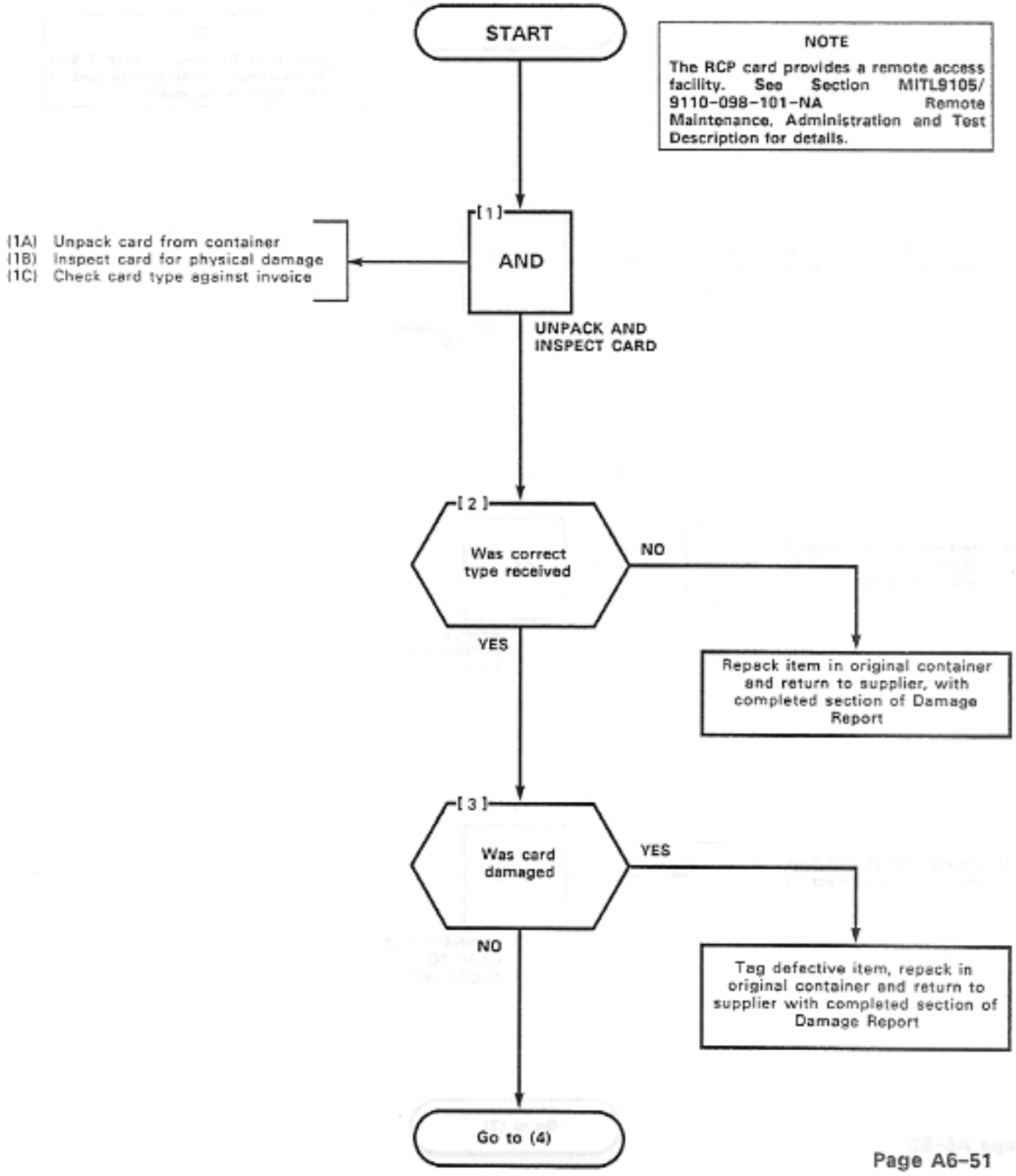

INSTALLATION OF RCP CARD
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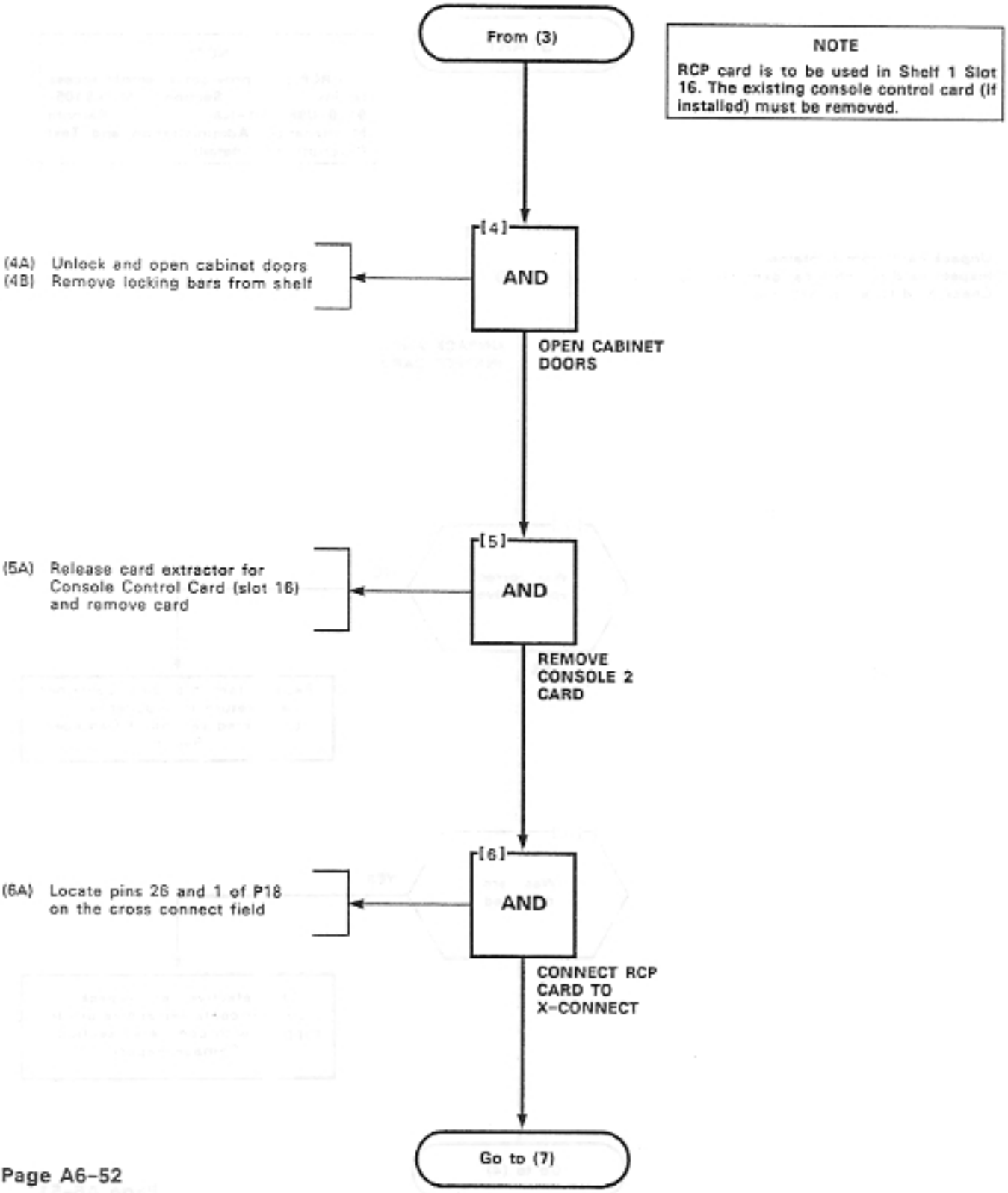

INSTALLATION OF RCP CARD
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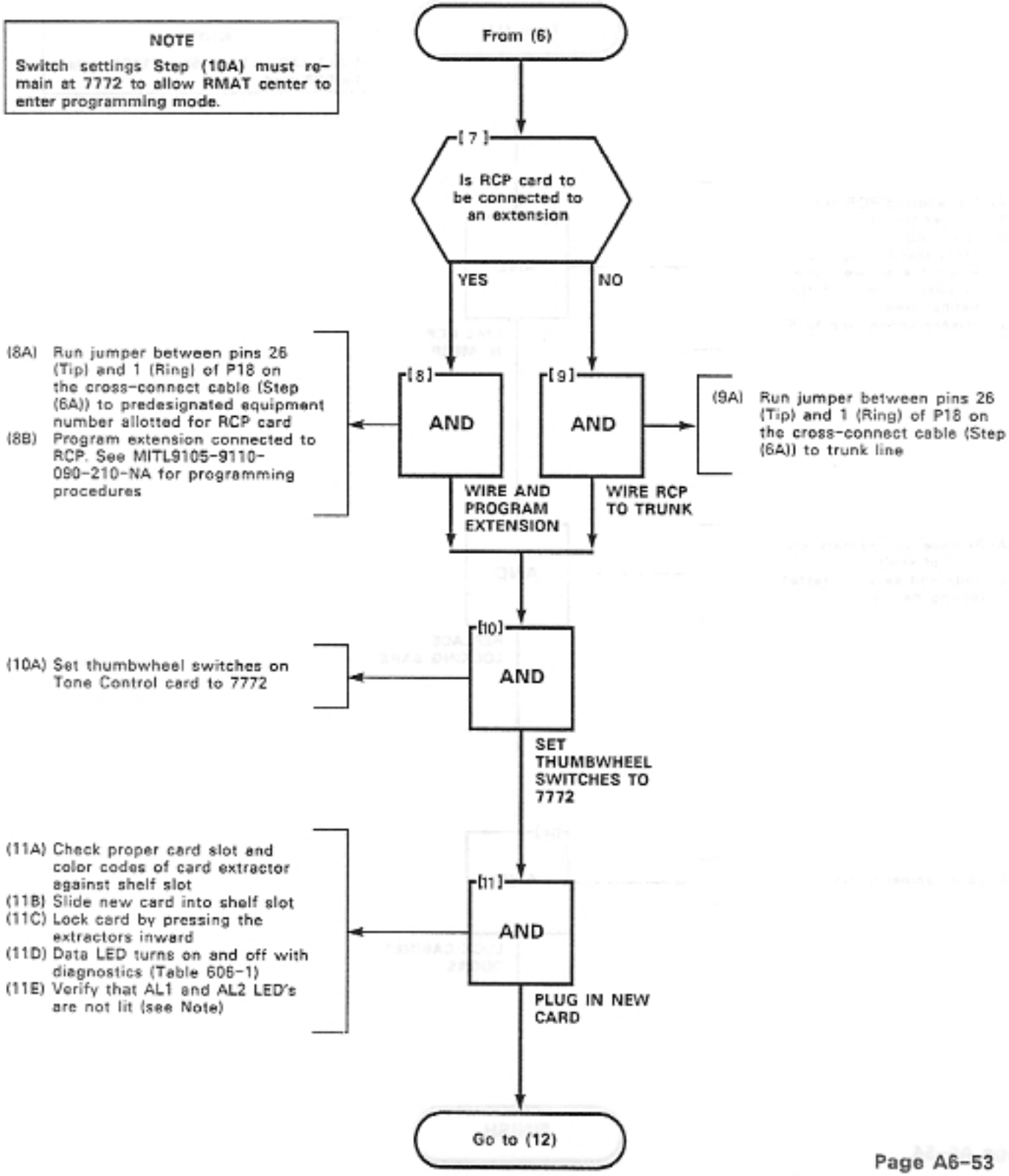

INSTALLATION OF RCP CARD
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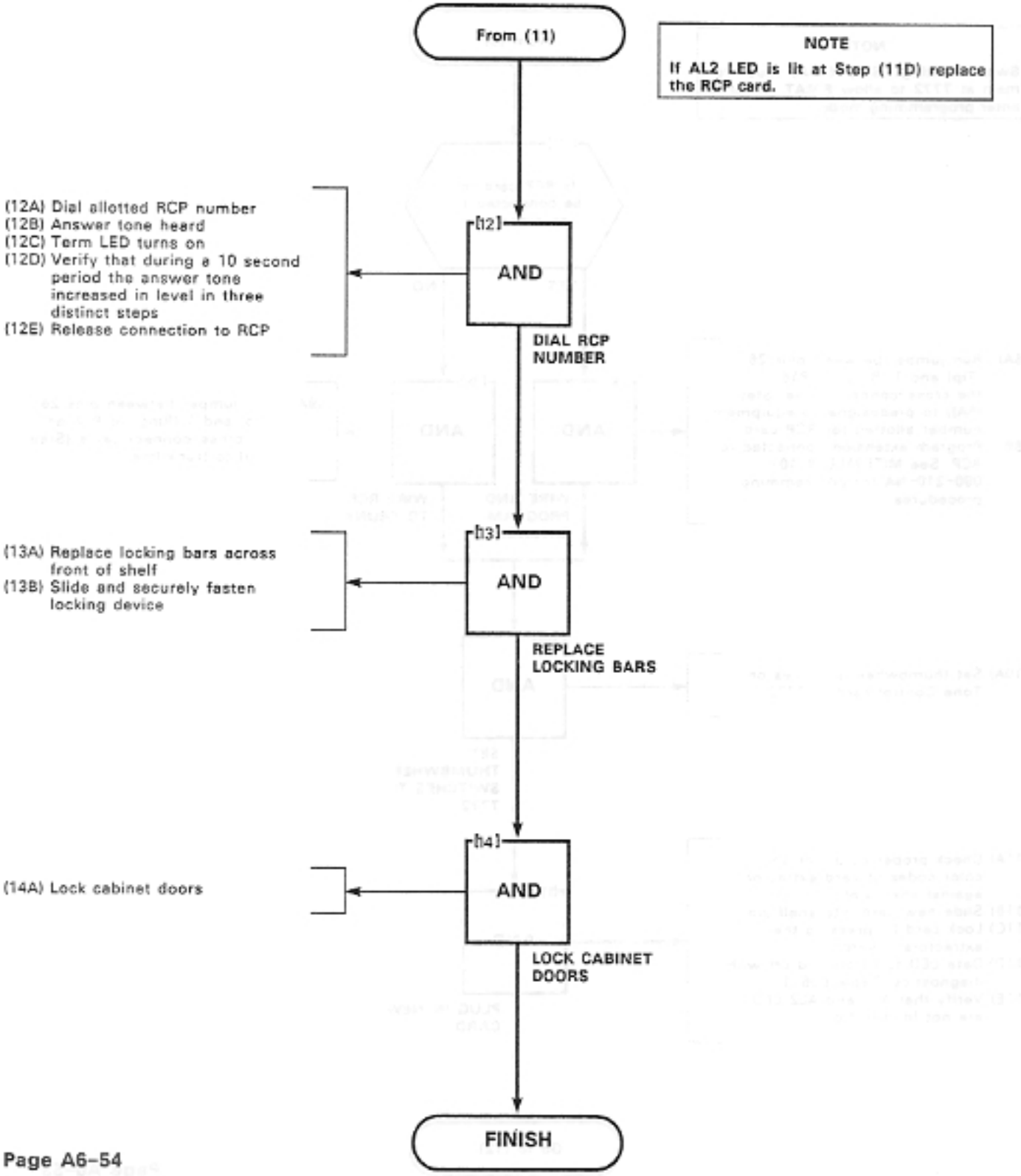

TABLE 606-1
RCP LED INDICATIONS

DESIGNATION	DESCRIPTION OF INDICATIONS
DATA	1. LED lit when the RCP is connected to the RMAT Controller and data is being transmitted. 2. LED lit during diagnostic tests. Tests consist of three 10 second periods followed by 17 seconds during which LED is off.
TERM	LED is lit when the RCP answers the RMAT Controller
AL1	Alarm LED AL1 is lit when alarm is activated by the watchdog timer
AL2	Alarm LED flashes if failure occurs during the RCP self-test diagnostics. The LED is lit steadily if a checksum or RAM failure occurs during initialization.

RESERVE POWER SUPPLY INSTALLATION (SX-100)

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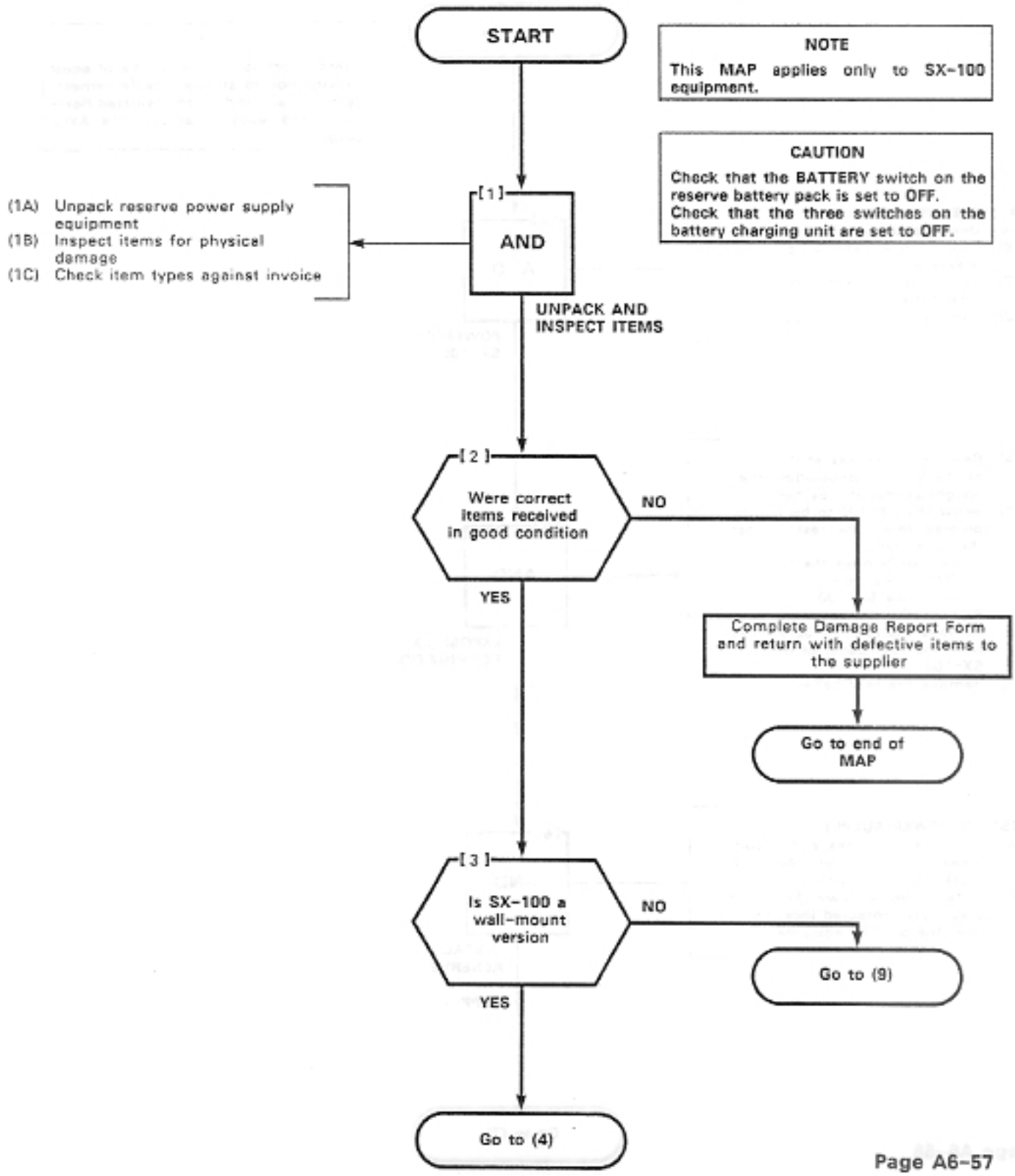

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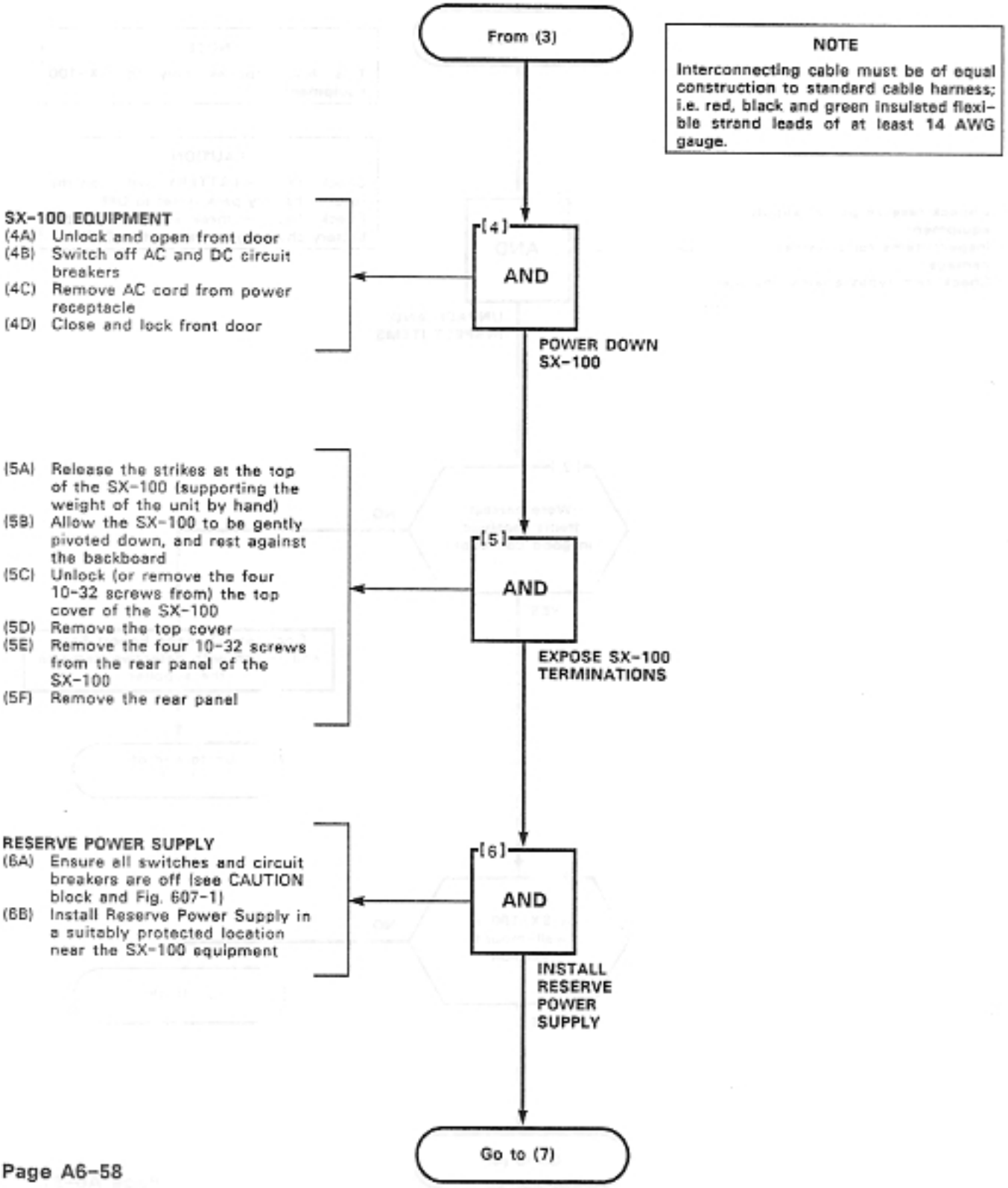

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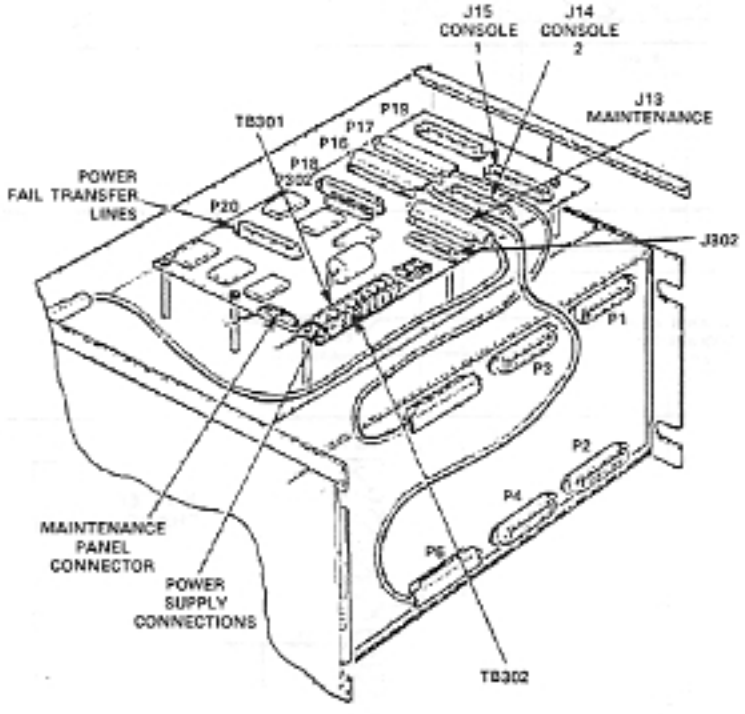

X952R3

Fig. 607-1 Cable Connections

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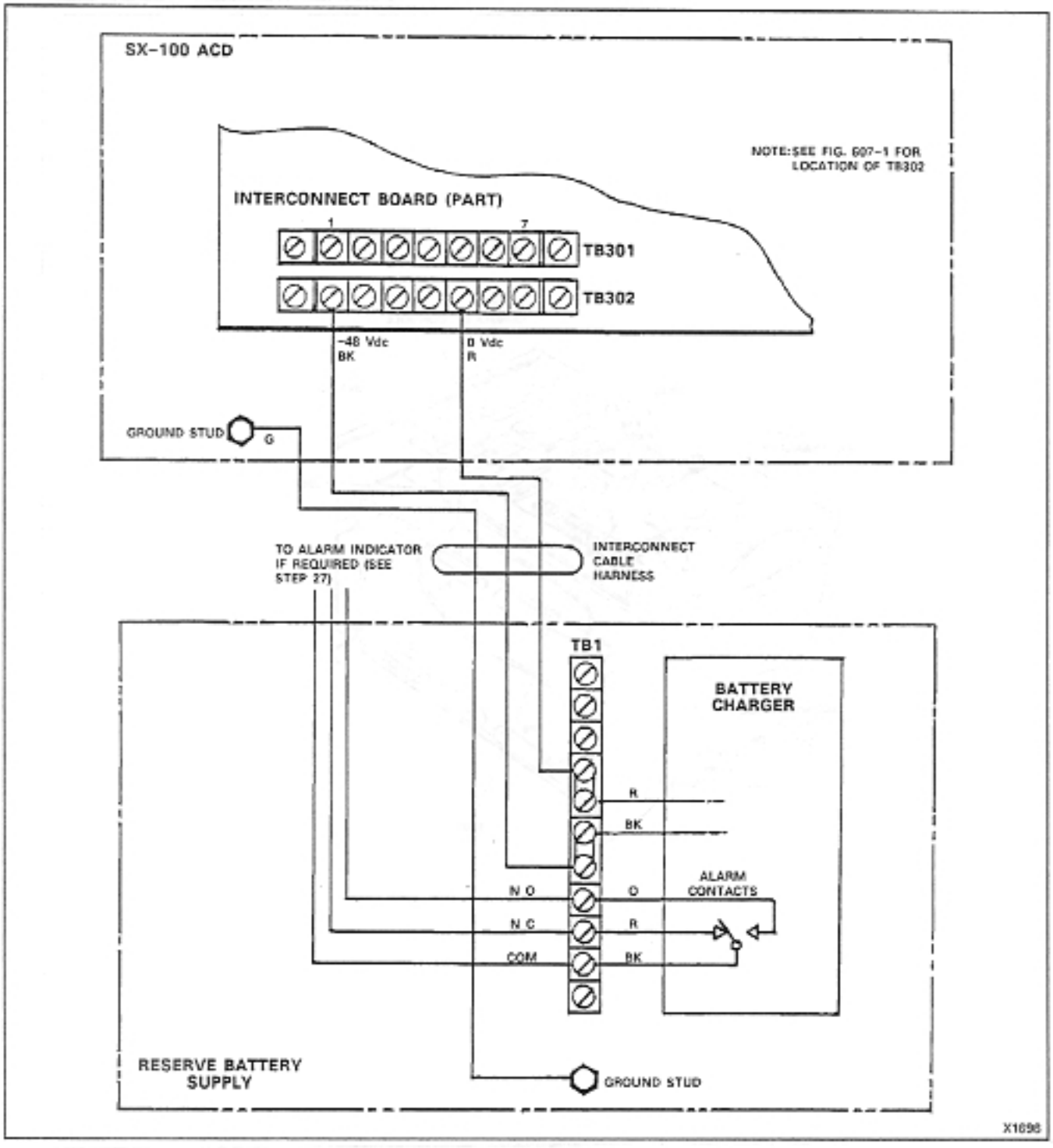

Fig. 607-2 Cable Harness Interconnections

RESERVE POWER SUPPLY INSTALLATION (SX-100)
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From (6)

NOTE

The Reserve Power Supply should be installed in a location which affords protection against mechanical or environmental damage and which requires an interconnecting cable run of no more than 50 feet.

[7]

AND

(7A) Loosen cable securing clamps of the SX-100
(7B) Run cable (of Fig. 607-2) to terminal block TB 302 on the SX-100 interconnect card through the cable clamps (see Fig. 607-3 and Notes 1 and 2)
(7C) Terminate cable to TB 302 as shown in Fig. 607-4
(7D) Tighten cable securing clamps (see Note 3)
(7E) Join connector plug of cable to connector jack of reserve power supply.

TERMINATE POWER CABLES

[8]

AND

(8A) Replace the back panel removed at Step (5F)
(8B) Secure the back panel with the screws removed at Step (5E)
(8C) Replace the top cover removed at Step (5D)
(8D) Lock the cover (or secure with the screws removed at Step (5C))
(8E) Swing the SX-100 equipment up to its normal position, and ensure that the strikes latch and engage properly

RESTORE SX-100 TO NORMAL POSITION

[9]

Is SX-100 a standard cabinet version

NO → Go to (21)

YES

Go to (10)

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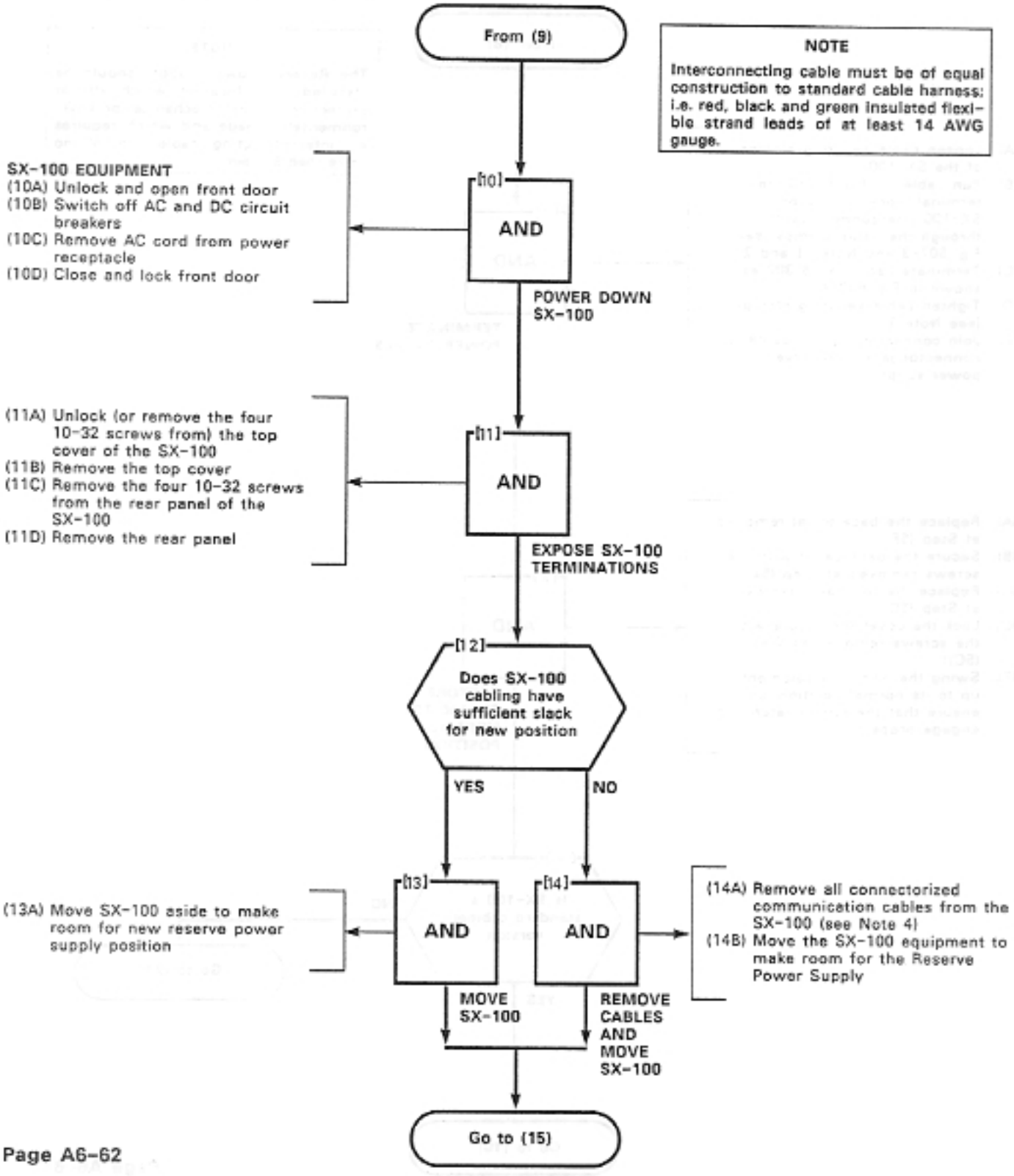

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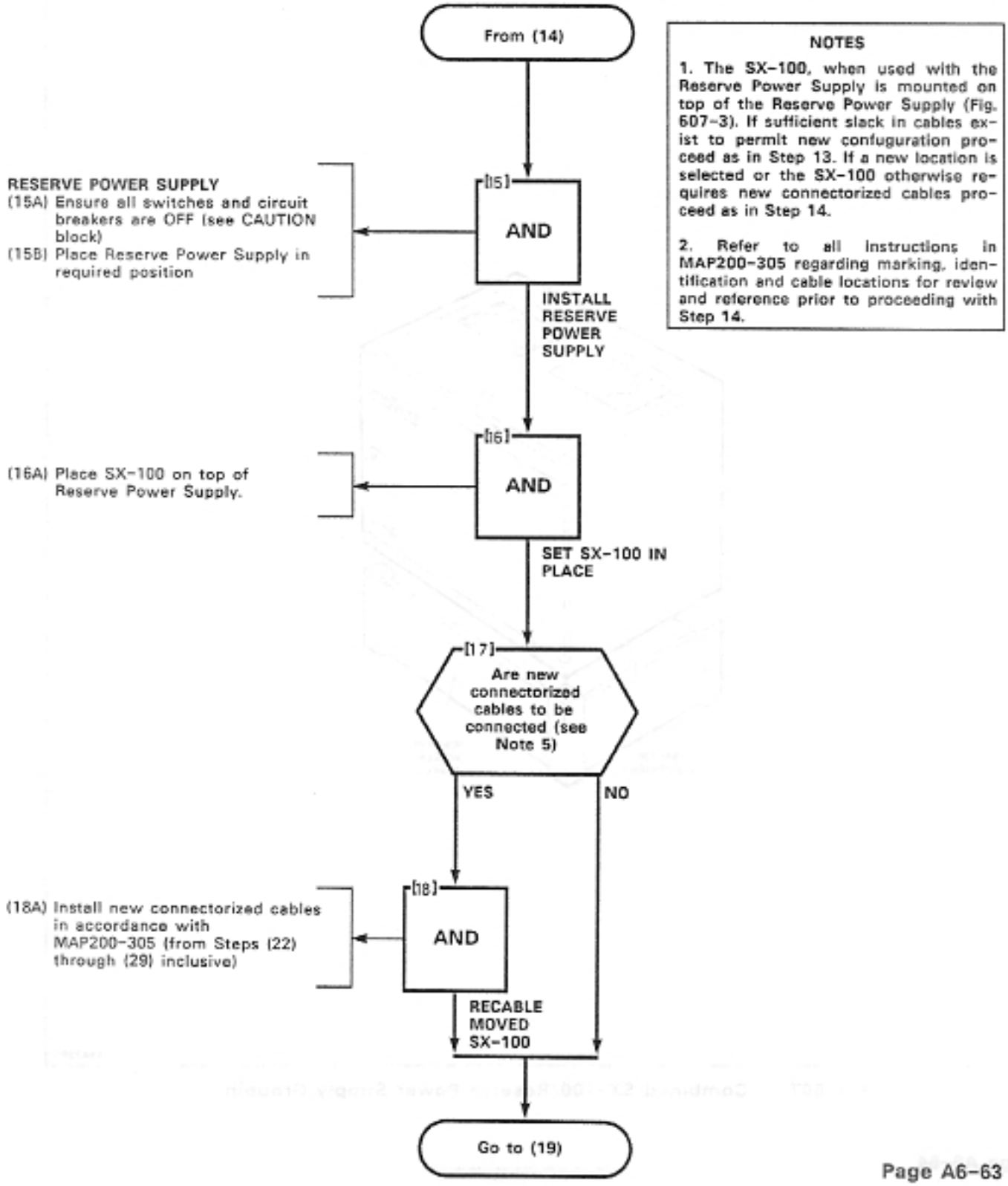

NOTES

1. The SX-100, when used with the Reserve Power Supply is mounted on top of the Reserve Power Supply (Fig. 607-3). If sufficient slack in cables exist to permit new confuguration proceed as in Step 13. If a new location is selected or the SX-100 otherwise requires new connectorized cables proceed as in Step 14.

2. Refer to all instructions in MAP200-305 regarding marking, identification and cable locations for review and reference prior to proceeding with Step 14.

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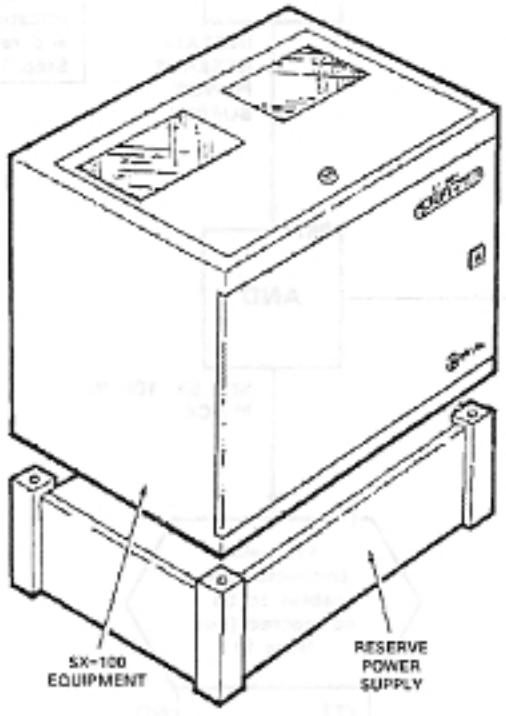

Fig. 607-3 Combined SX-100/Reserve Power Supply Grouping

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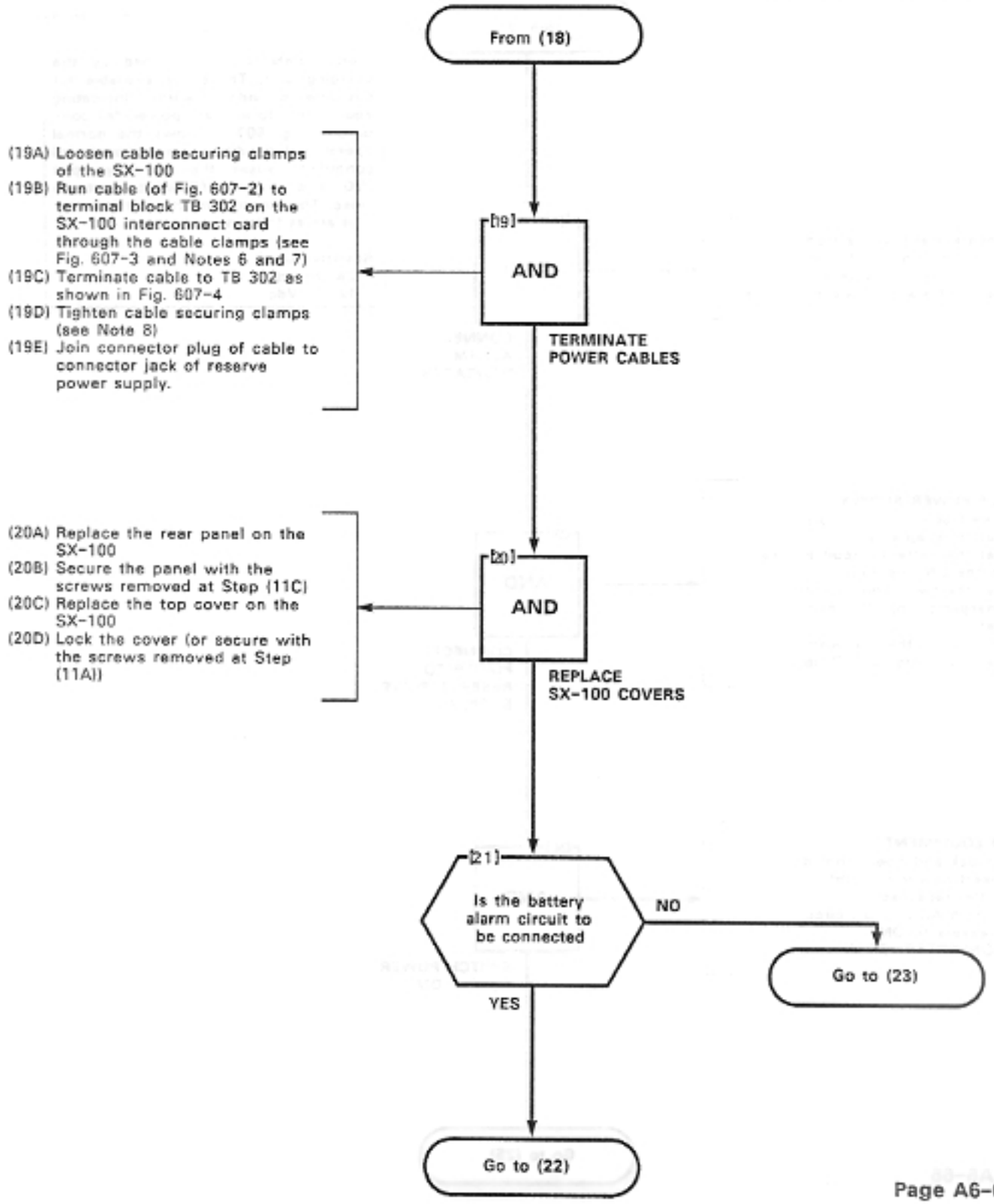

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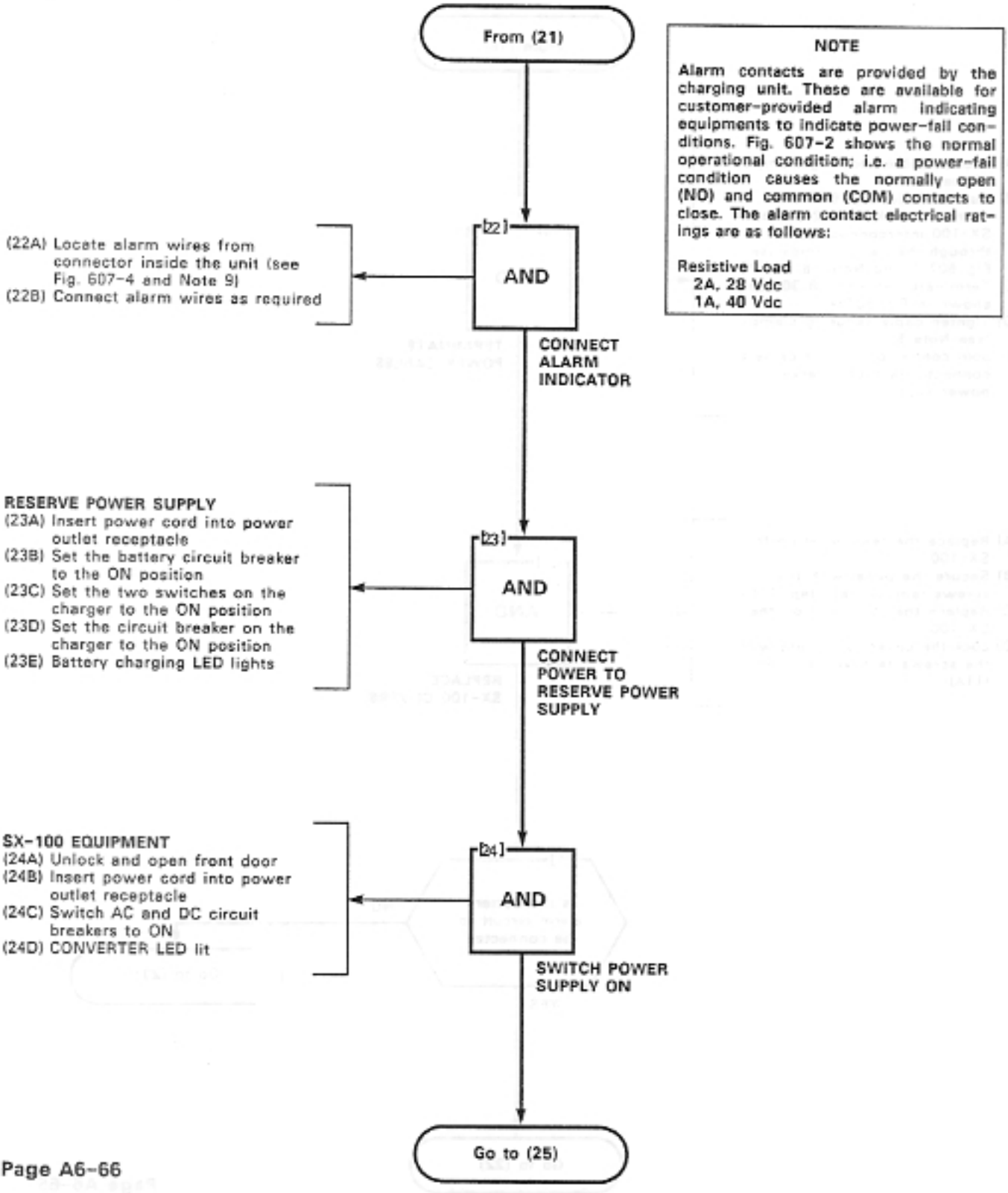

NOTE

Alarm contacts are provided by the charging unit. These are available for customer-provided alarm indicating equipments to indicate power-fail conditions. Fig. 607-2 shows the normal operational condition; i.e. a power-fail condition causes the normally open (NO) and common (COM) contacts to close. The alarm contact electrical ratings are as follows:

Resistive Load
2A, 28 Vdc
1A, 40 Vdc

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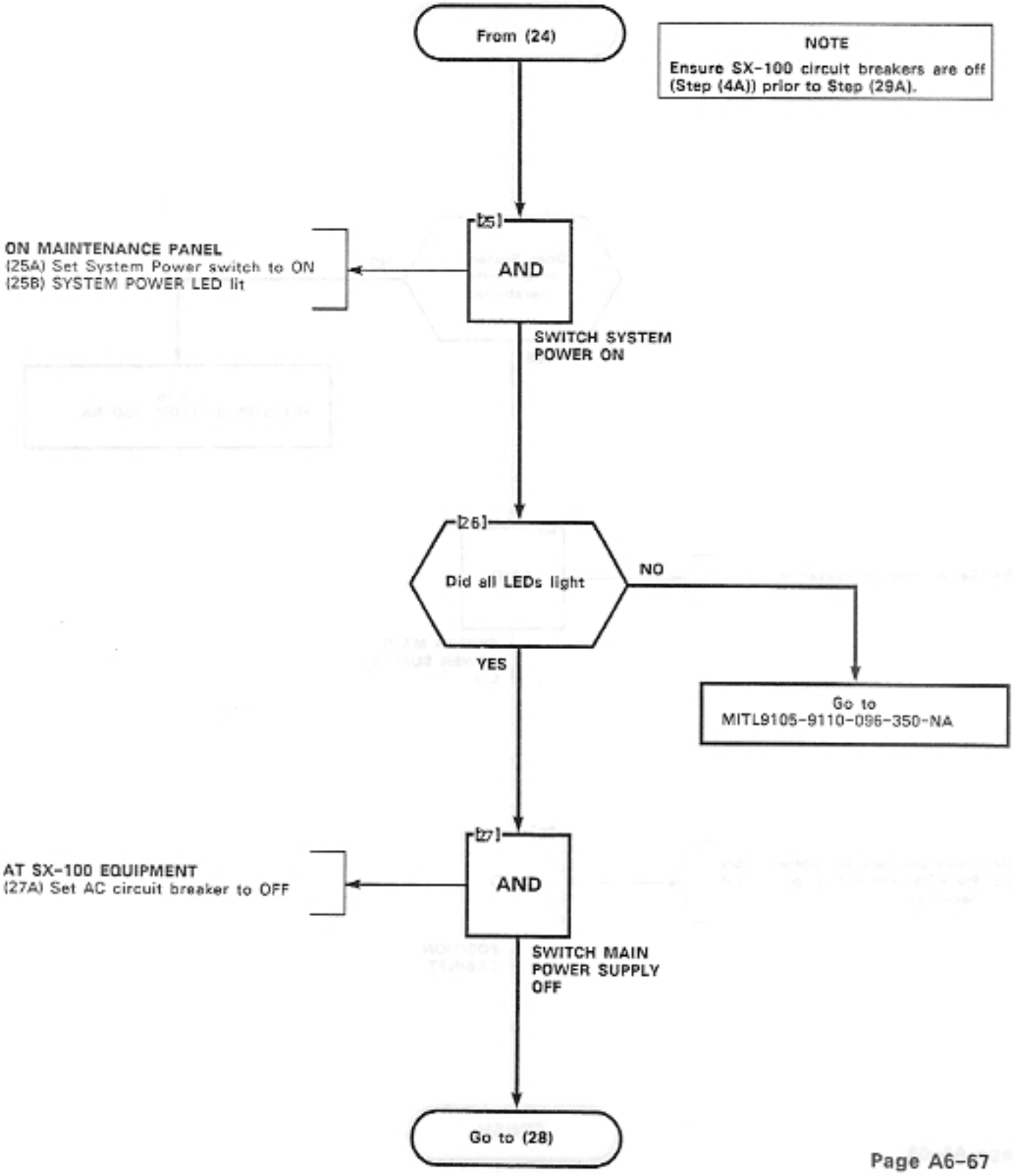

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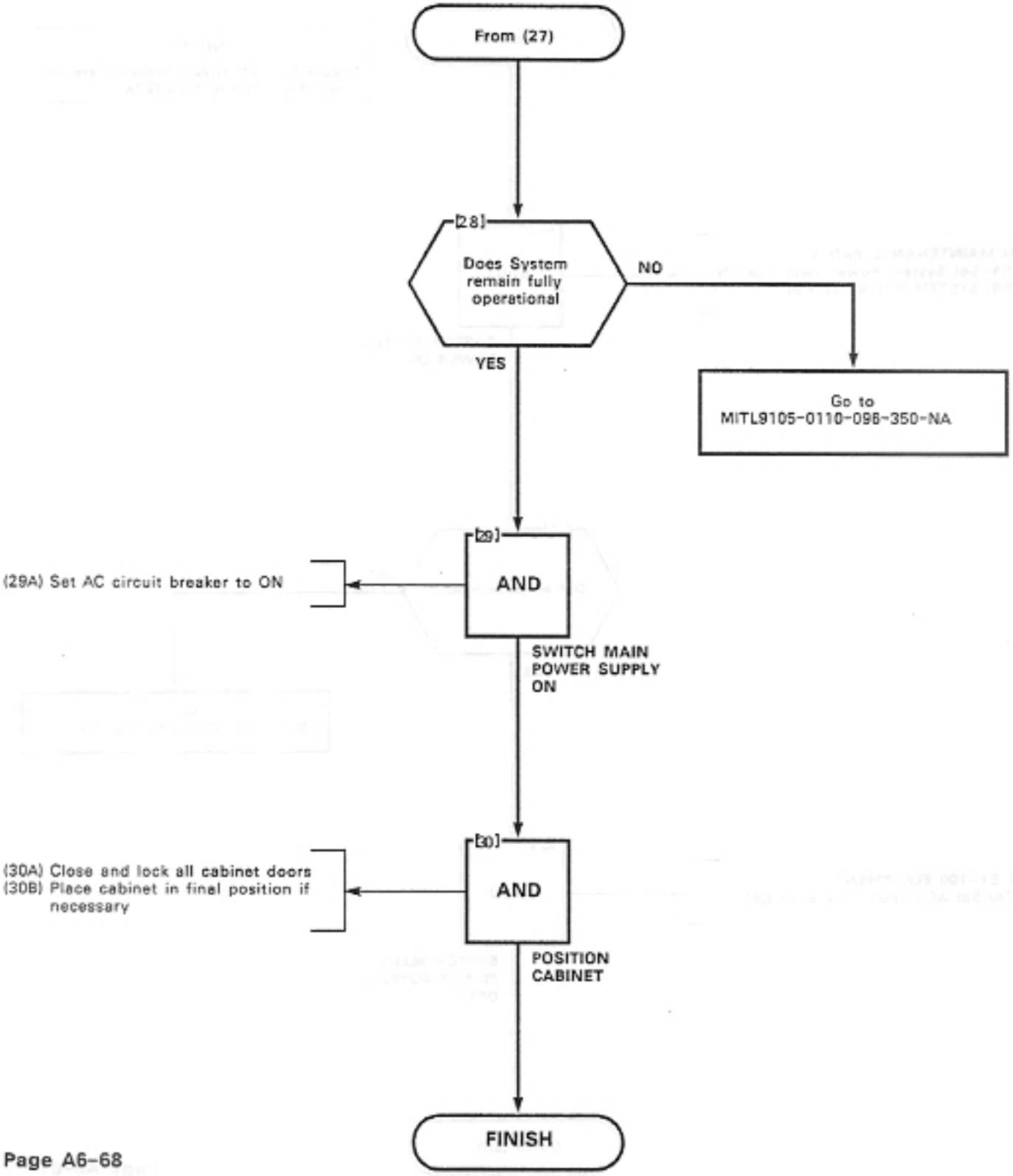

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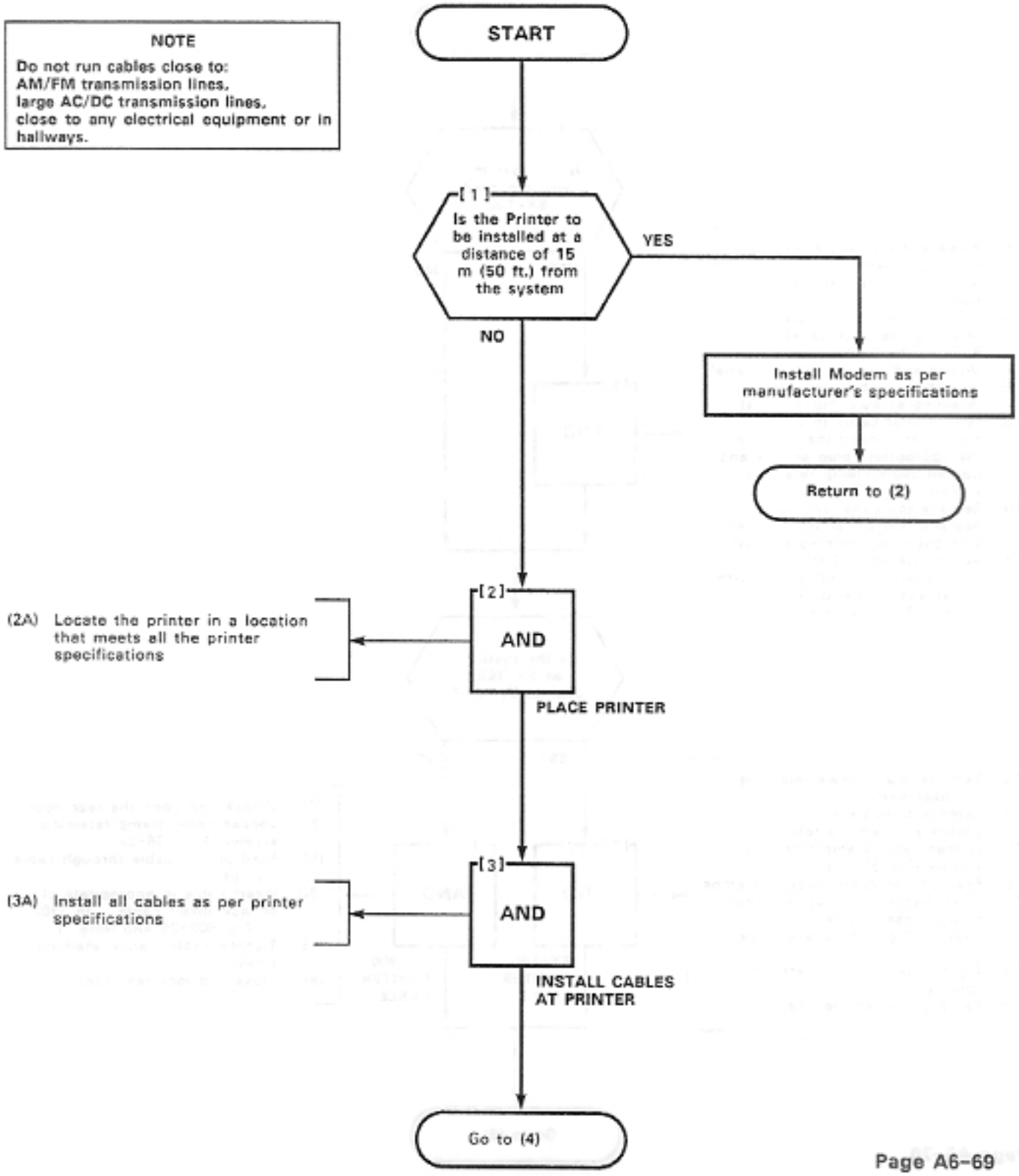

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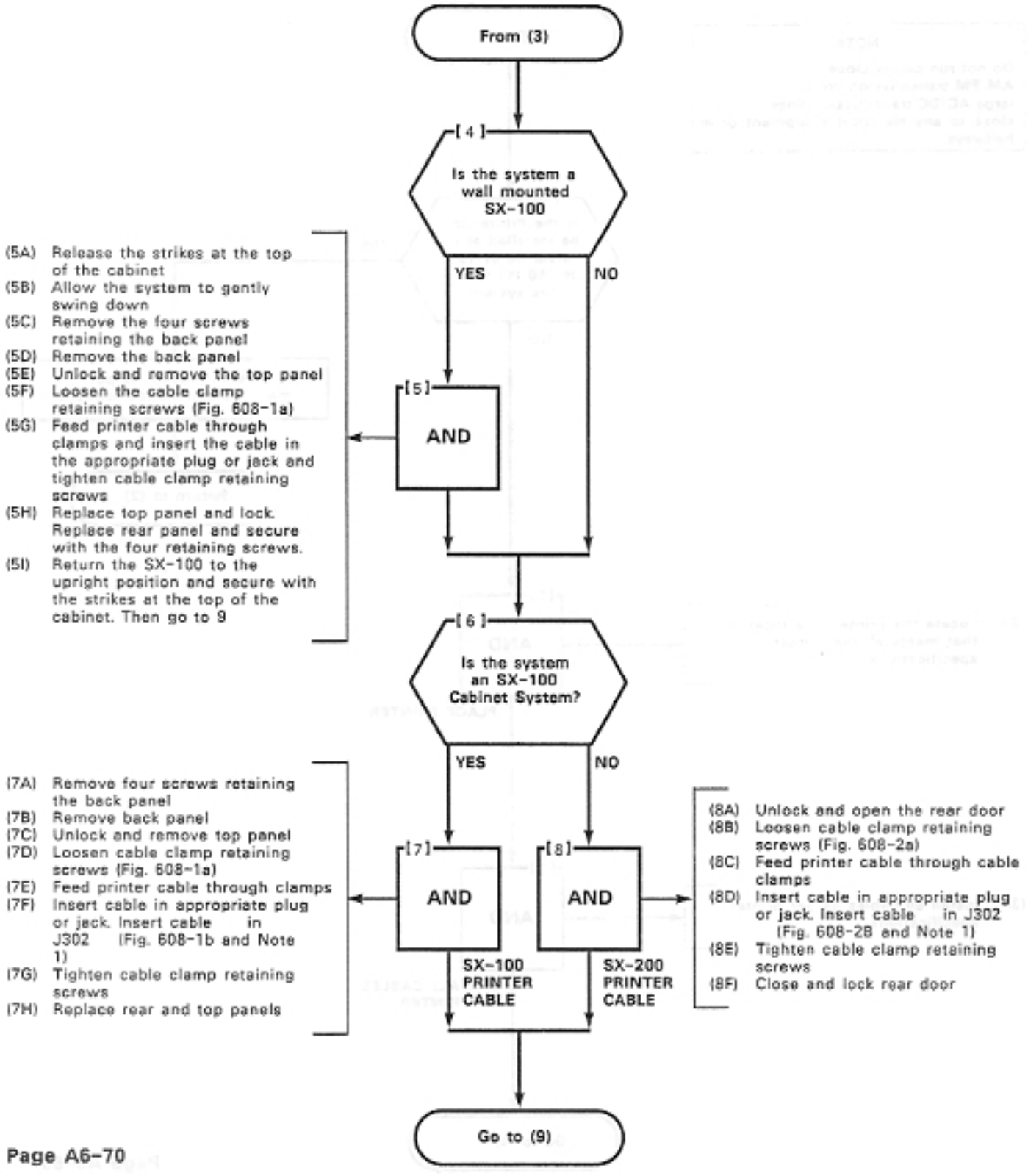

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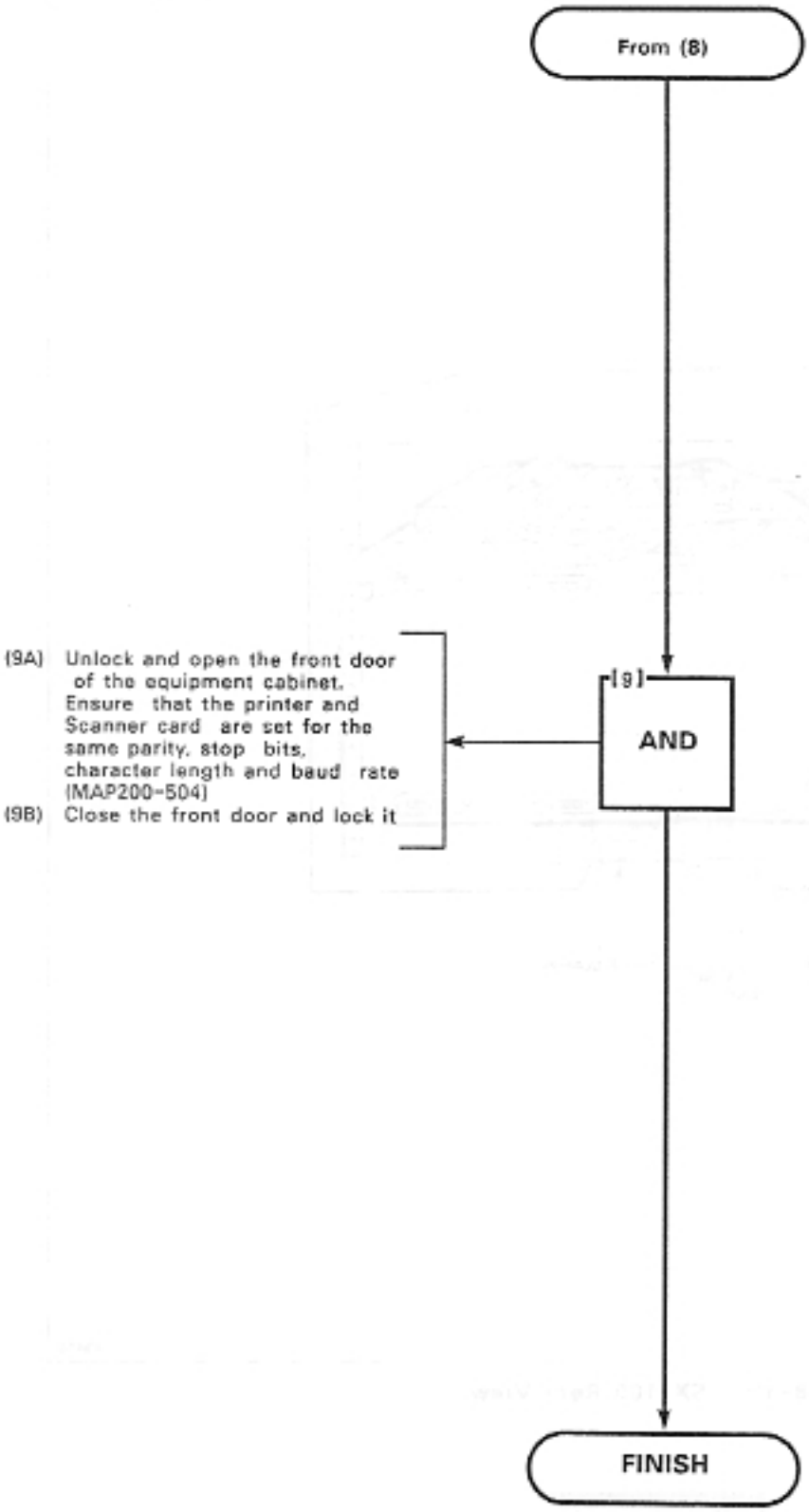

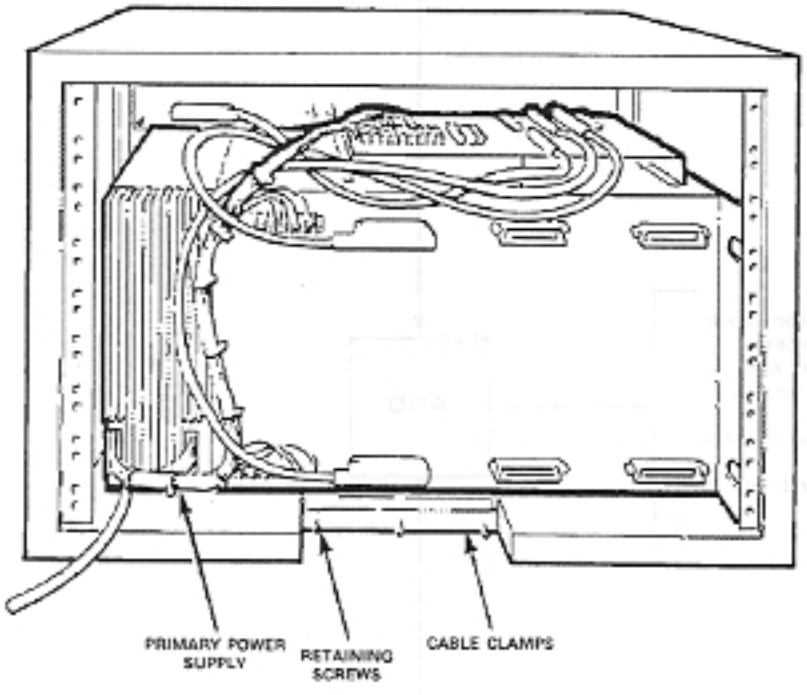

Fig. 608-1(a) SX-100 Rear View

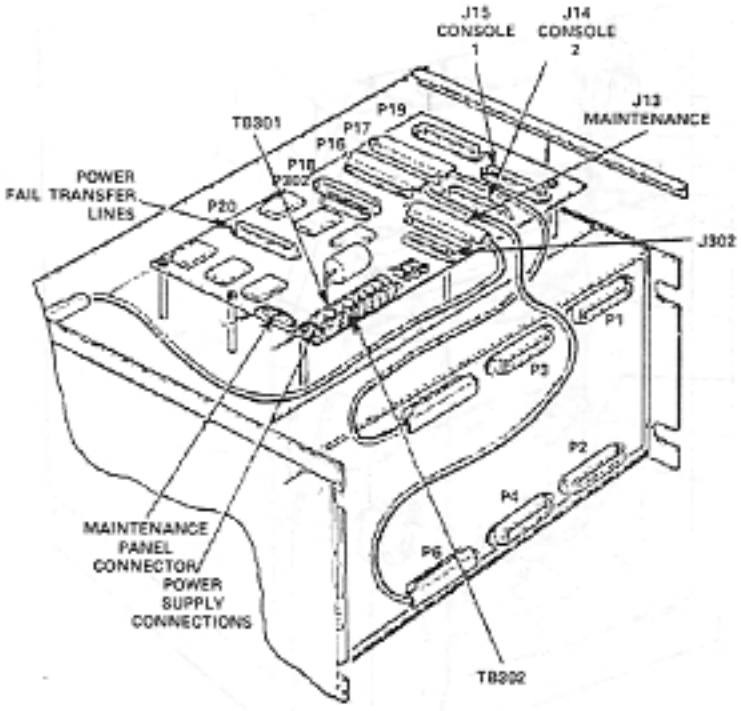

Fig. 608-1(b) SX-100 Top View

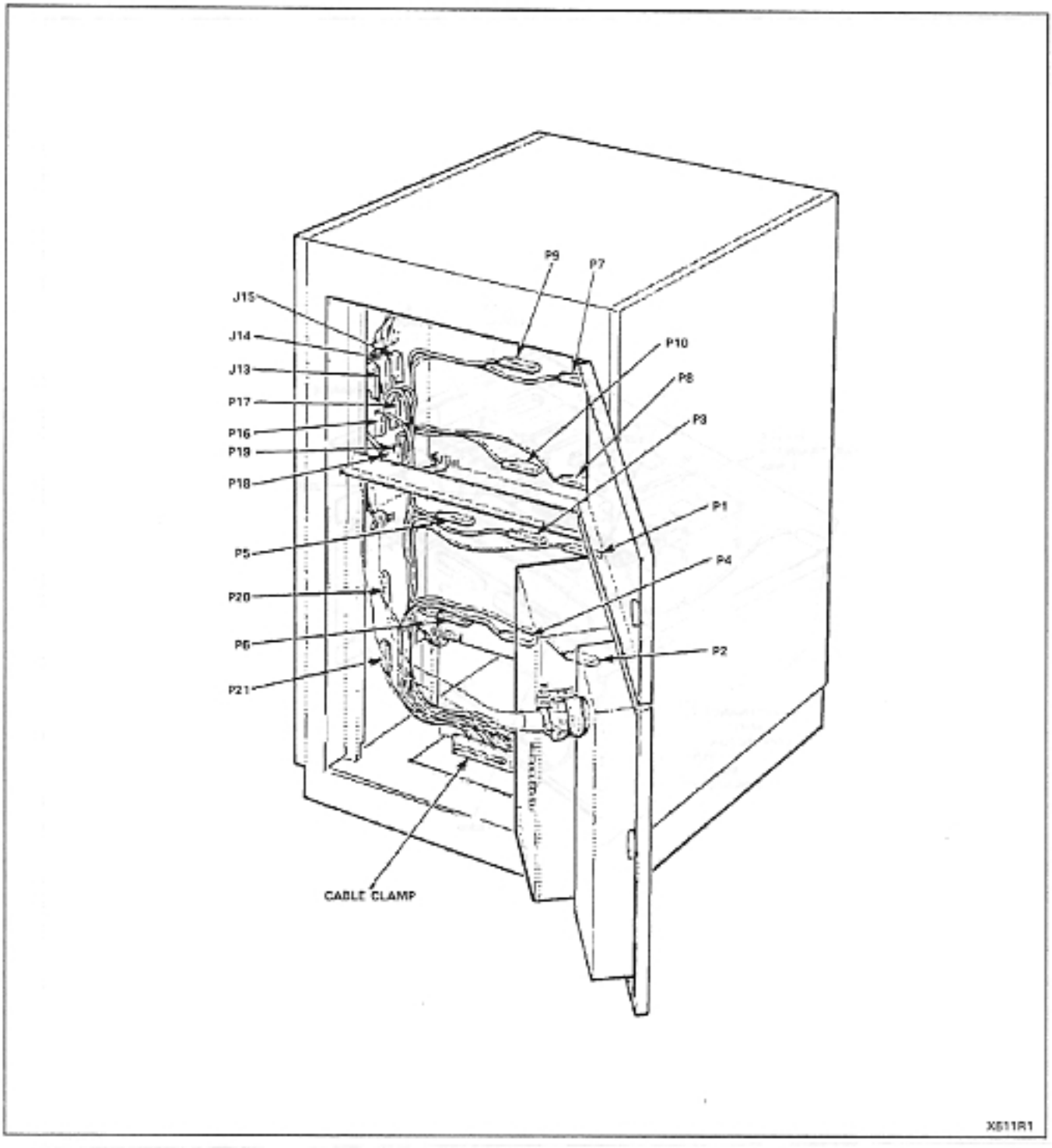

Fig. 608-2(a) SX-200 Rear View

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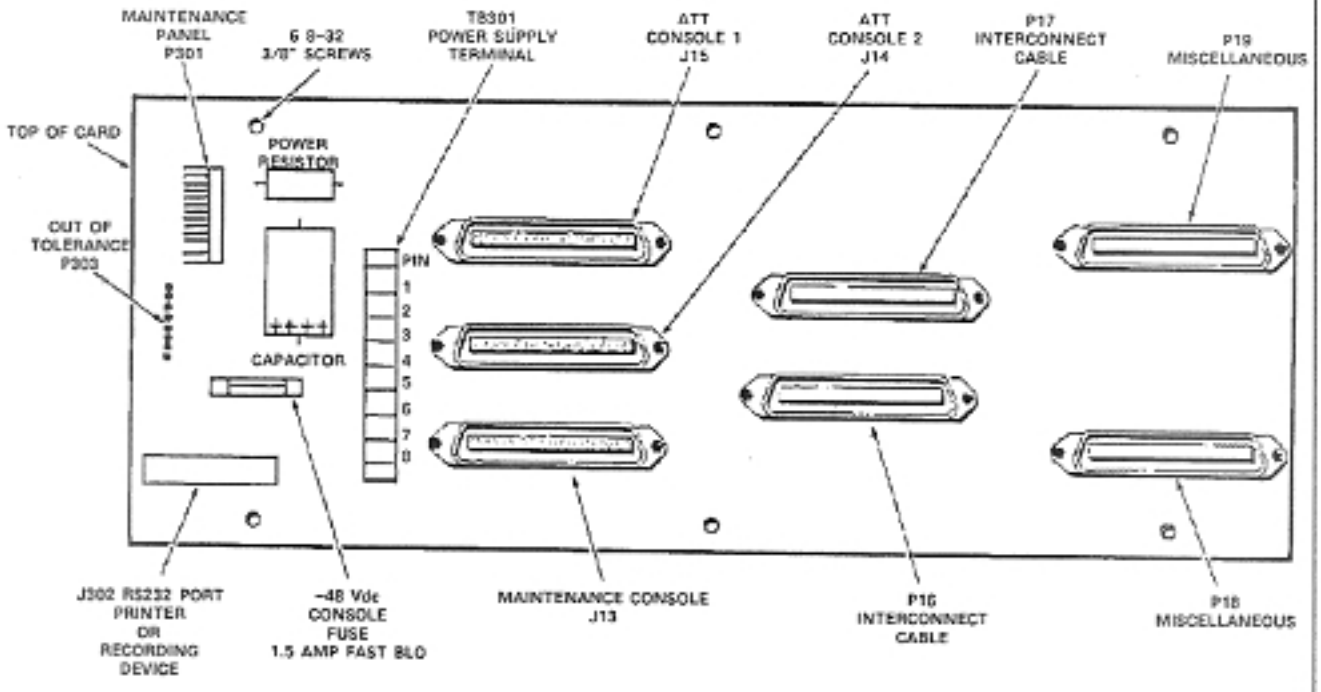

Fig. 608-2(b) SX-200 Interconnect Board

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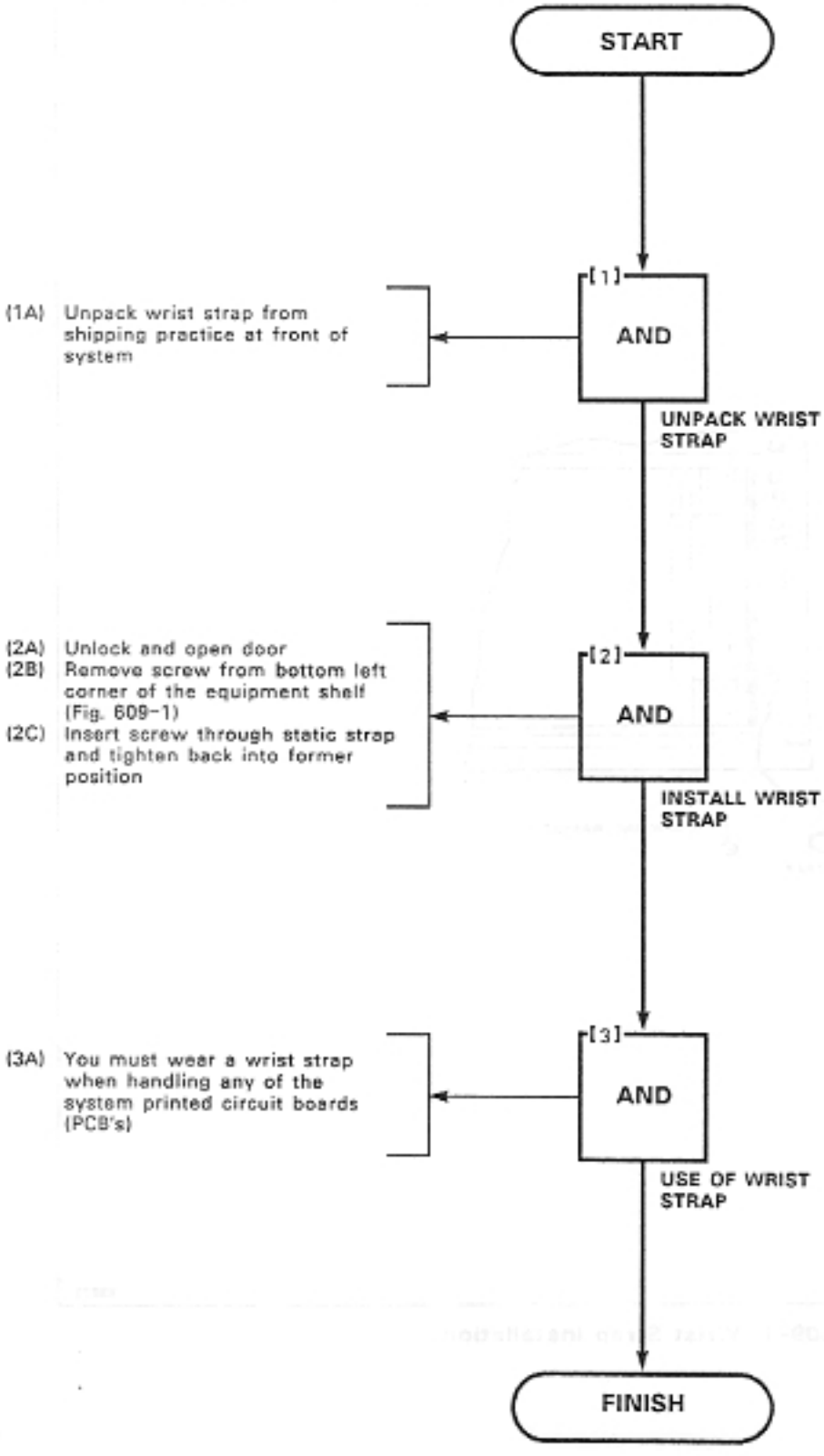

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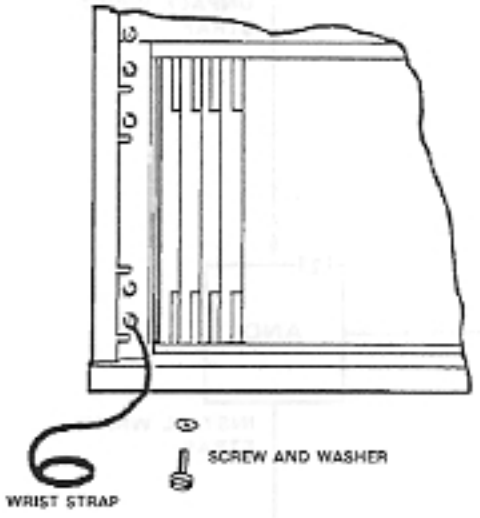

X3275

Fig. 609-1 Wrist Strap Installation

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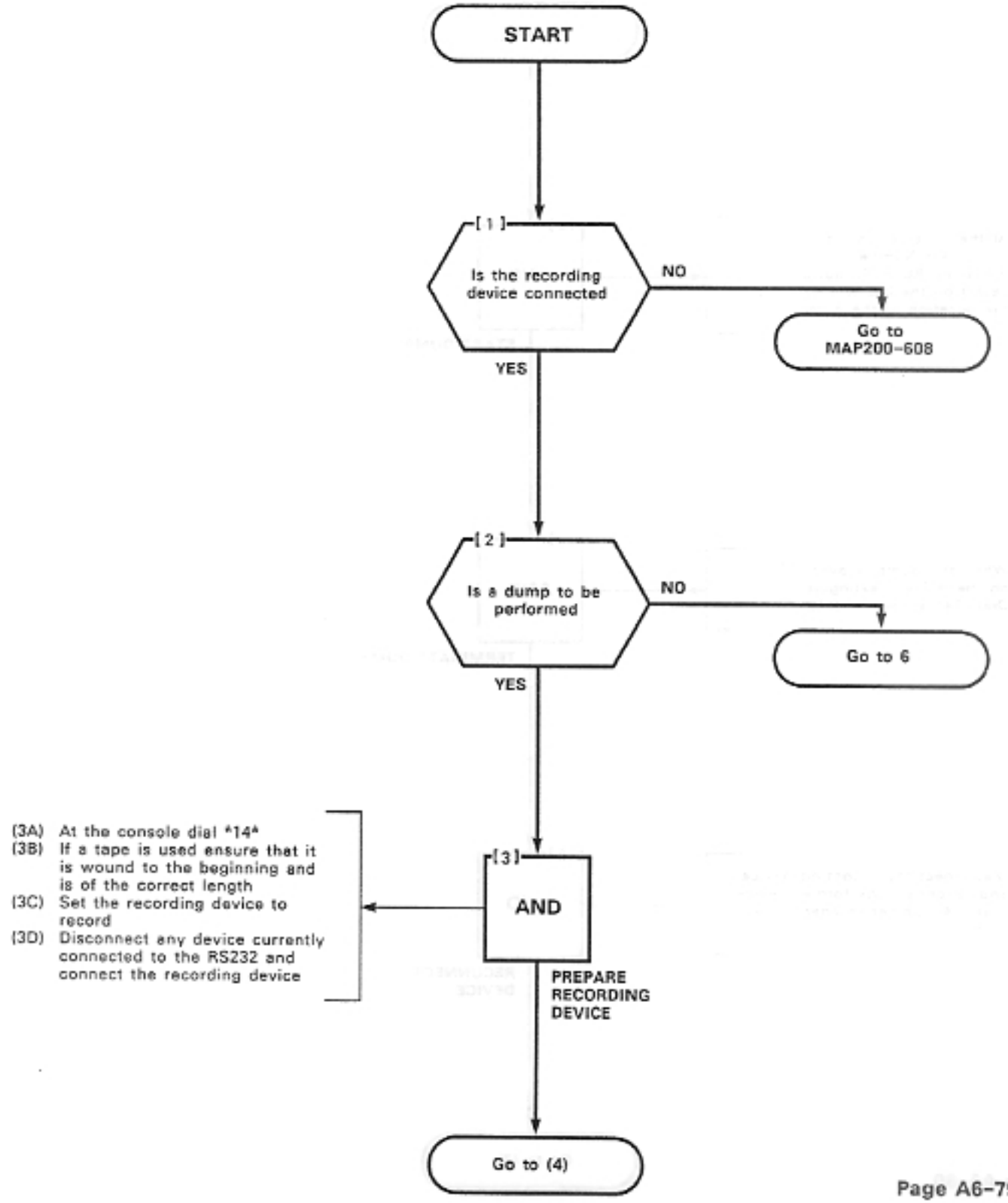

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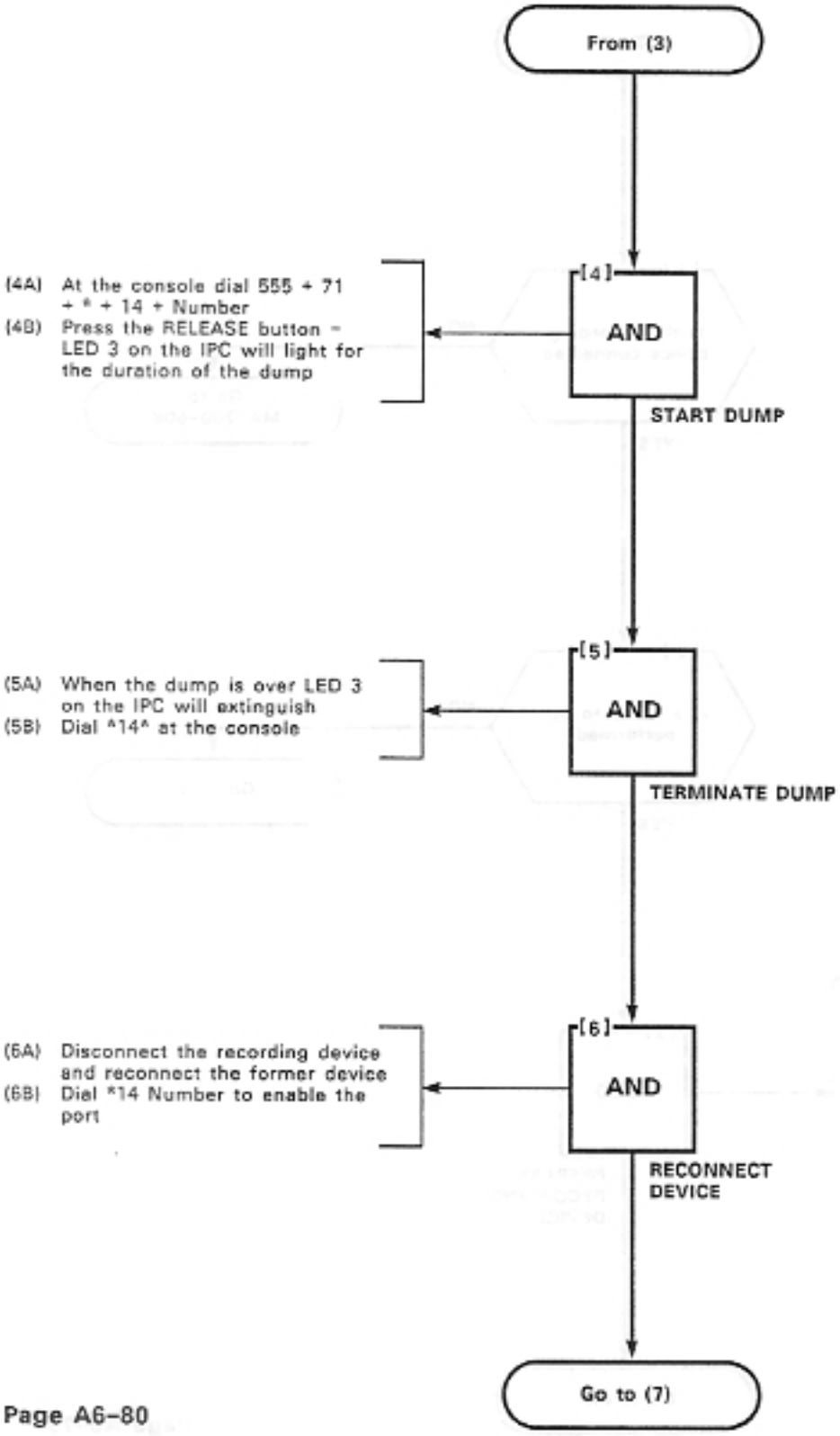

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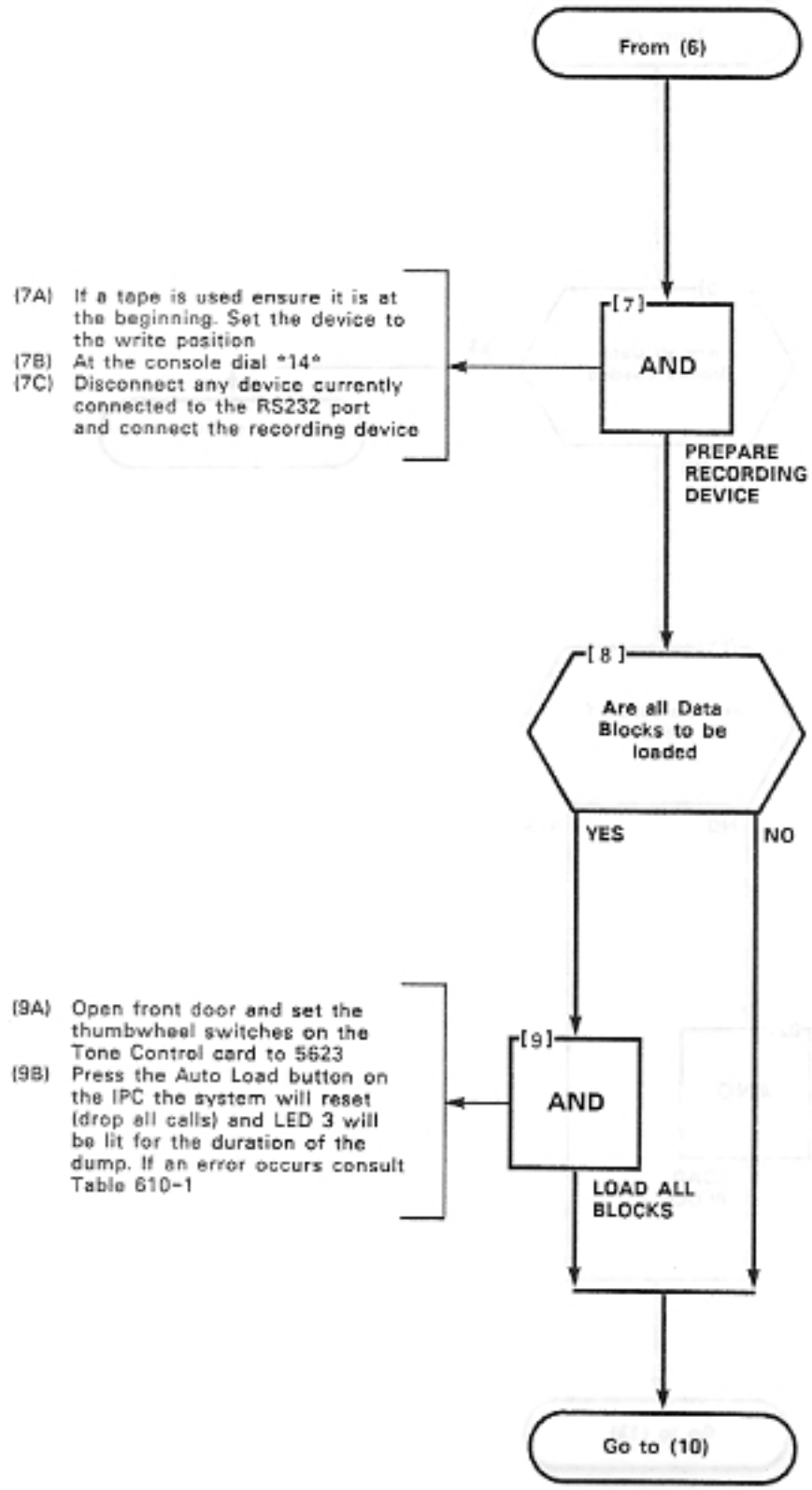

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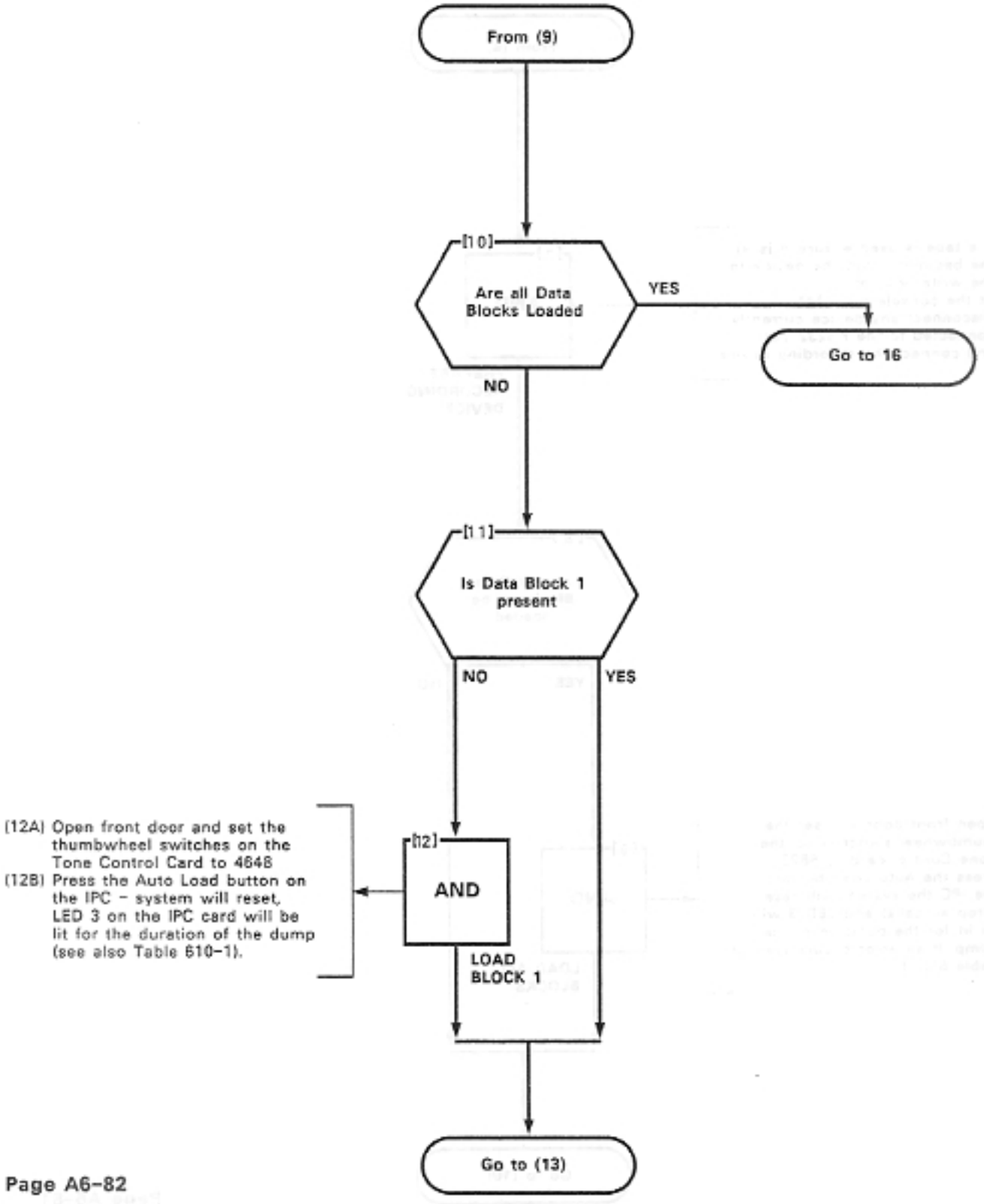

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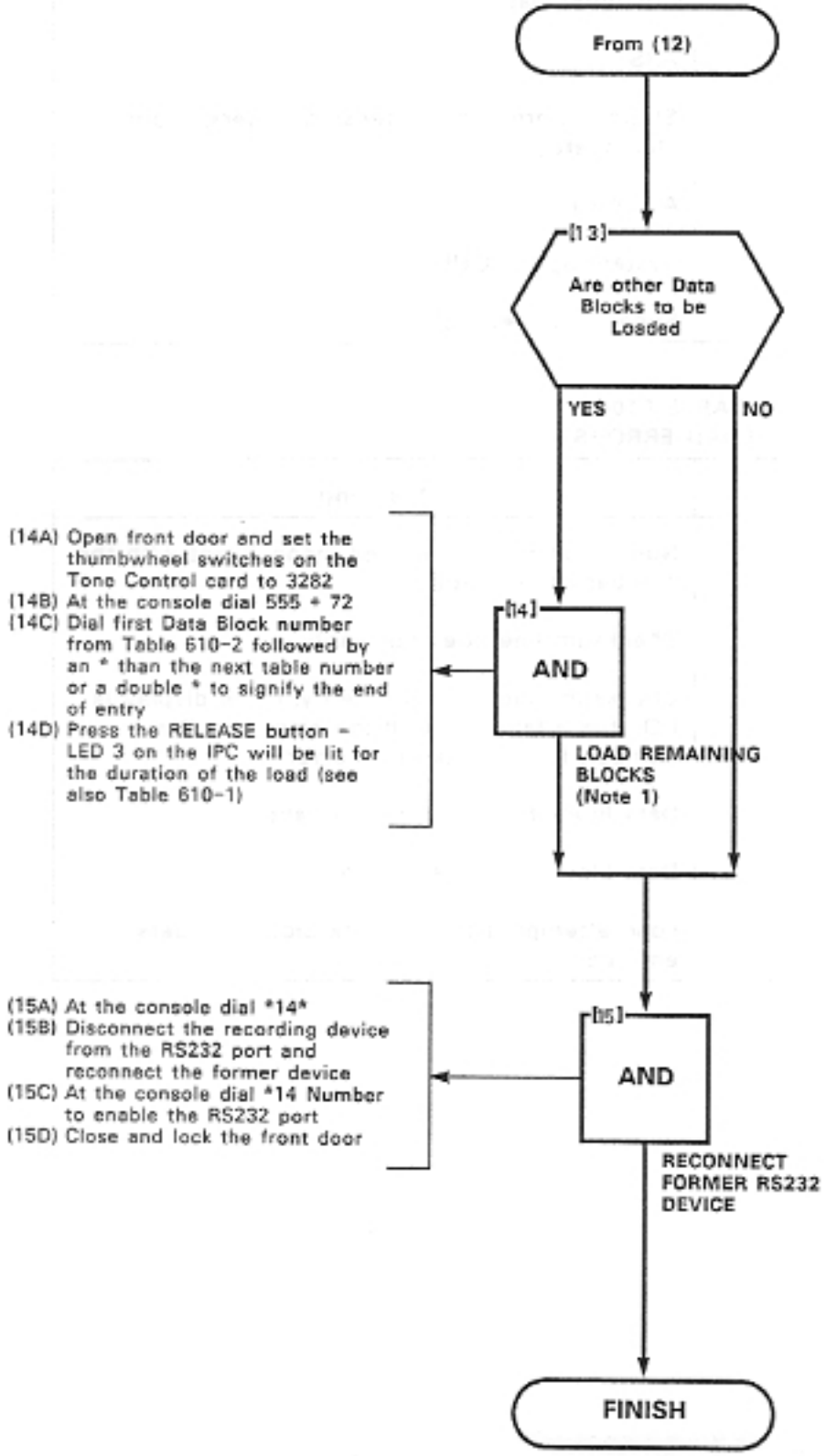

TABLE 610-2
CUSTOMER DATA BLOCKS

Data Block Number	Customer Data Block Information
1	All Standard Programming and Superset Customer Data
3	ARS
5	Station Information (extension meters, room status, etc.)
6	Alarm Call
7	System Speed Call
8	Superset Speed Call

TABLE 610-1
LOAD ERRORS

Display	Meaning
A#	Number of records written inconsistent with the number on the tape.
B#	Checksum line does not verify.
C#	Checksum line does not verify. If the display is CO, it is a label error. If the error is a C + a number, it is a Data Block error.
D#	Data Block found but not on label.
EO	Data block requested not no tape.
FO	Load attempted but no Data Block numbers entered.

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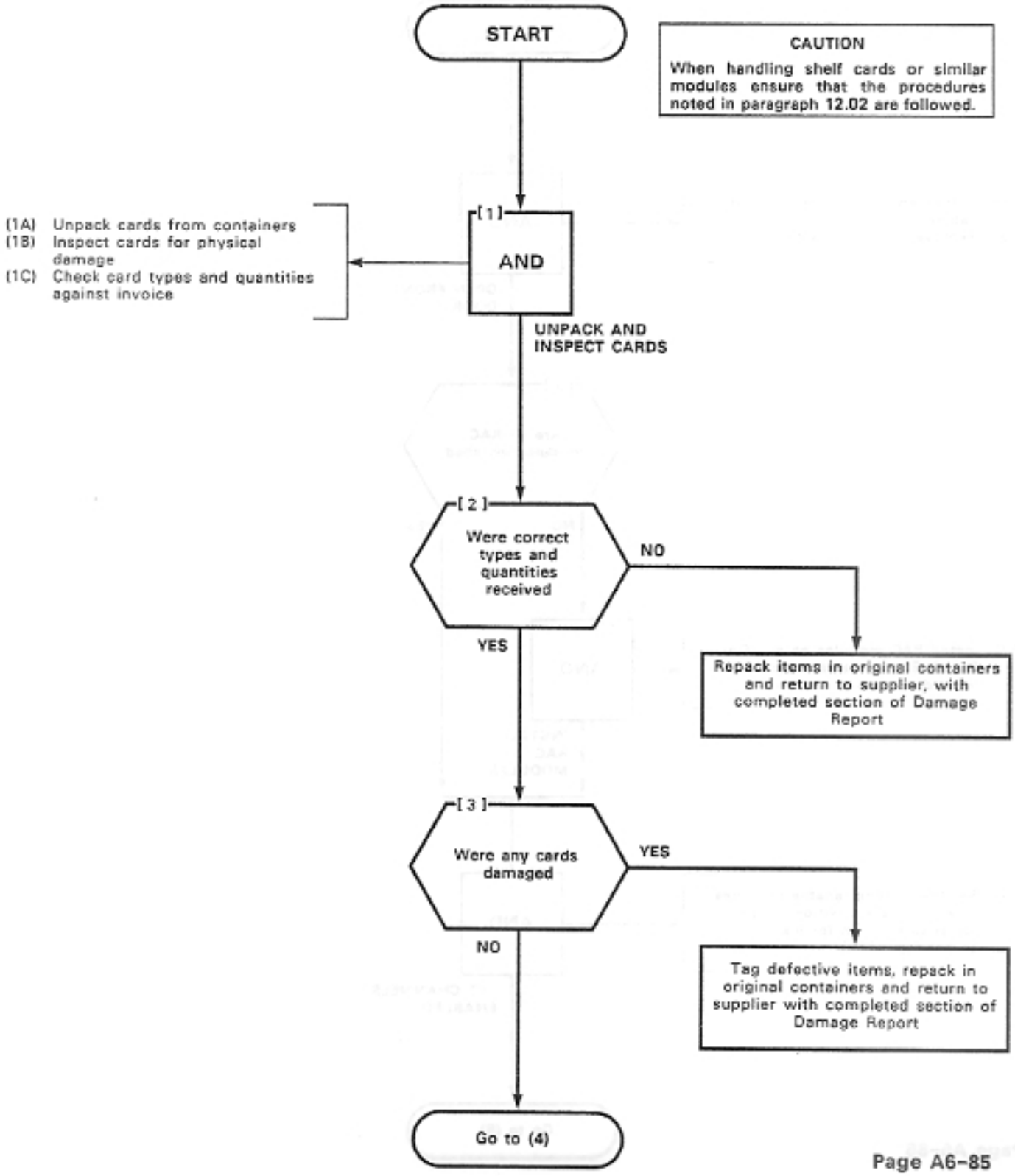

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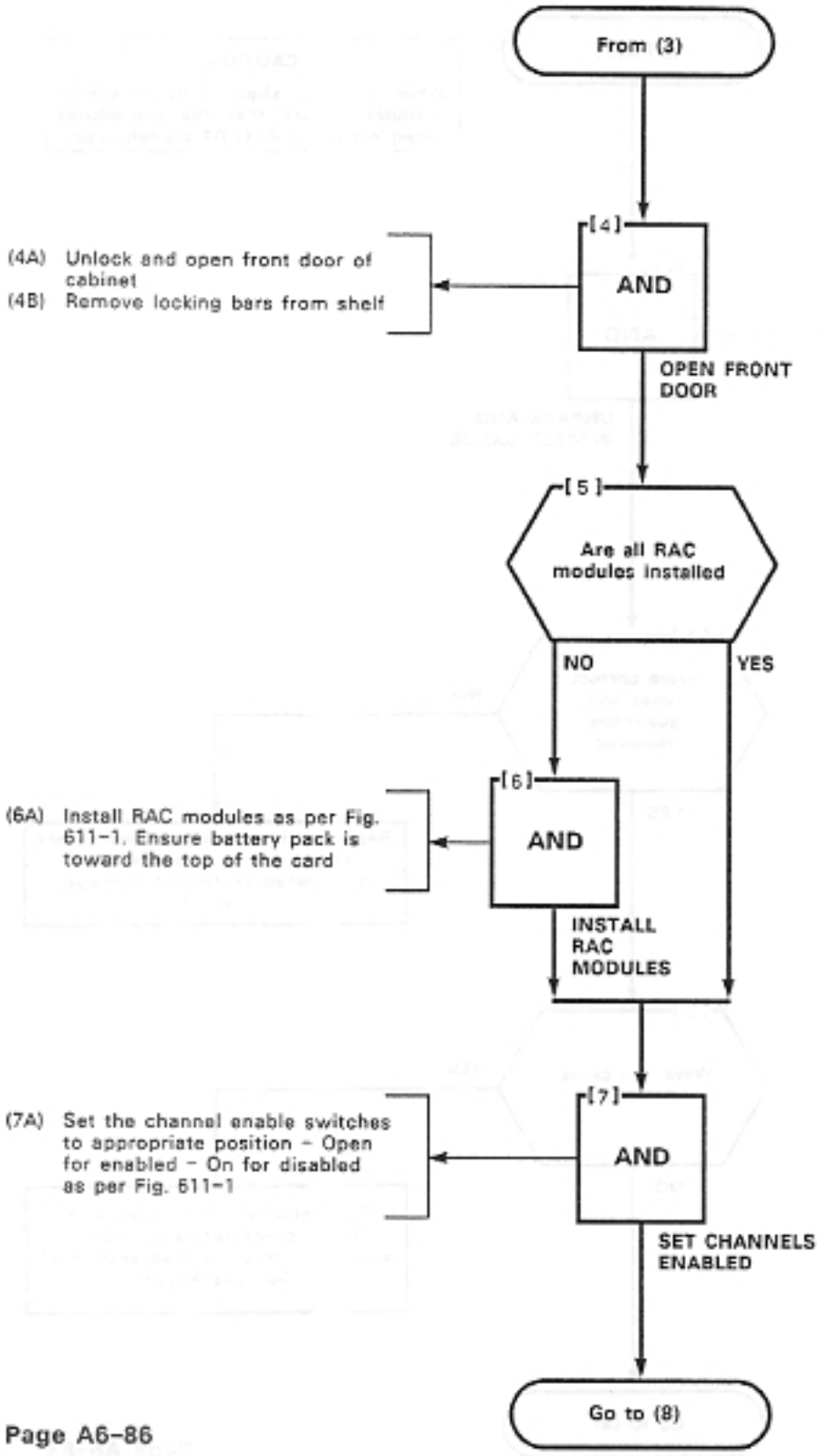

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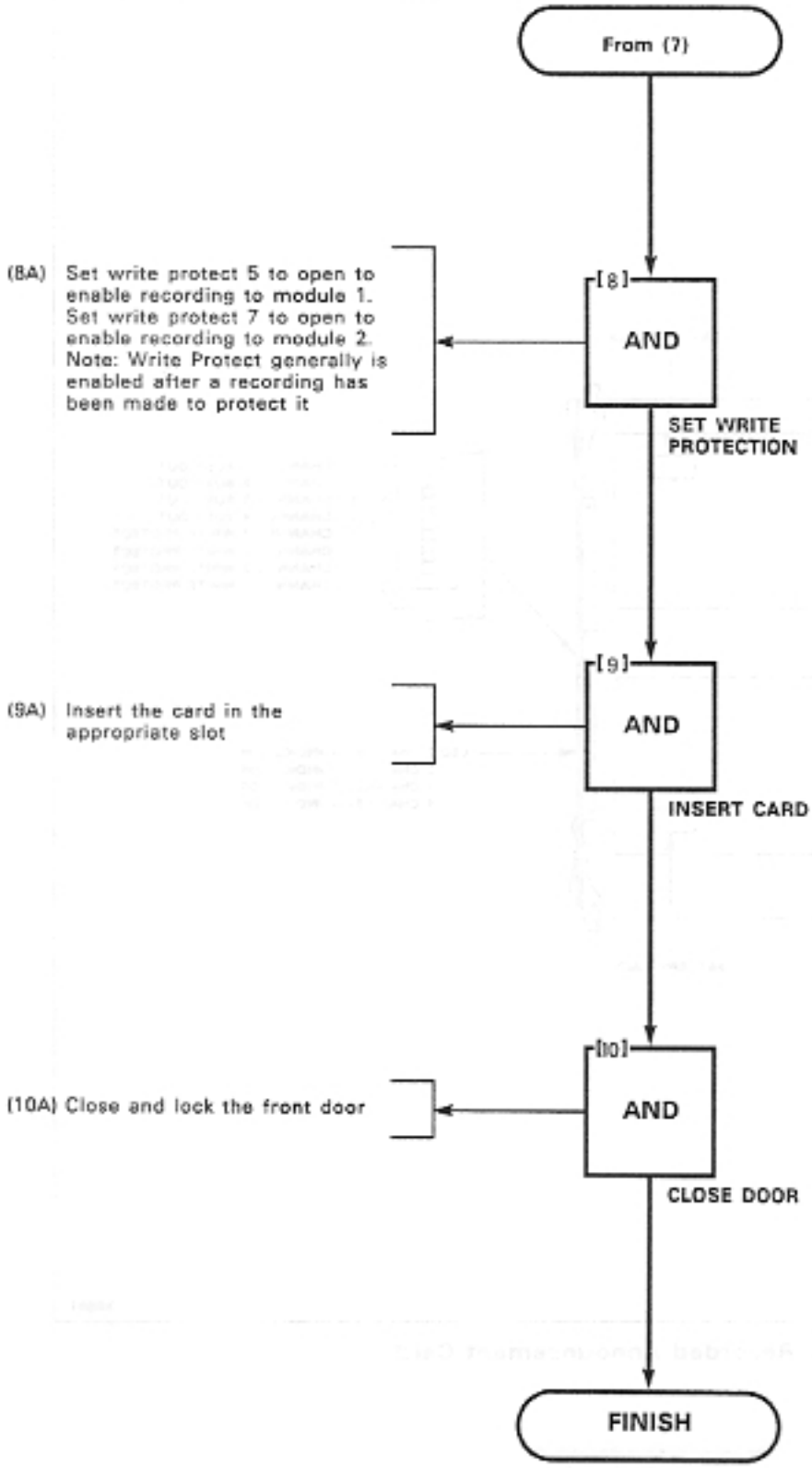

INSTALLATION OF RAC CARD
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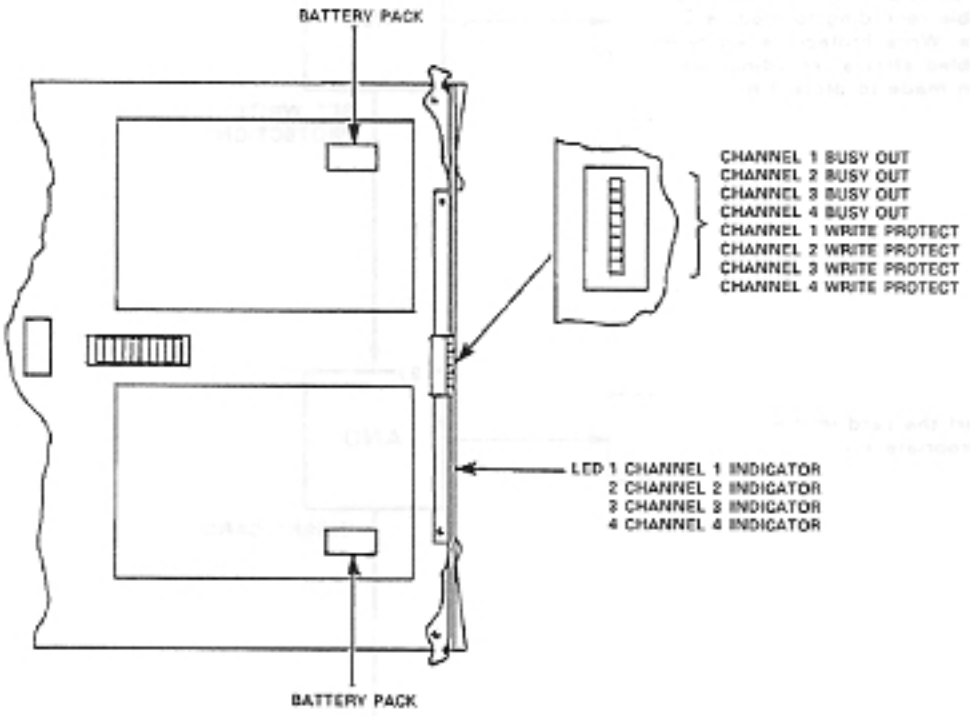

Fig. 611-1 Recorded Announcement Card

SX-100®/SX-200®
SUPERSWITCH®
AUTOMATIC CALL DISTRIBUTION SYSTEM
SYSTEM PROGRAMMING
GENERIC ACD

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LIST OF ILLUSTRATIONS

LIST OF TABLES

1. GENERAL

Introduction

1.01 The SX-100/SX-200 are processor-controlled Automatic Call Distribution (ACD) systems. In order to process calls, the central processor needs to know certain information about the calling and called equipment. This information is described by blocks of data held in the system memories. A number of service change programs are provided to allow additions, deletions and changes to be made to the equipment configuration. The seven service change programs provided are:

- **System Options.** Describes the options which may be enabled on a system basis.
- **Class-of-Service Options.** Each class of service specifies the features which may be used by stations assigned that Class of Service (COS). A maximum of 16 different classes of service may be specified for each system.
- **Feature Access Codes.** A number of features within the system are accessed by dialing a special access code. This program allows the access codes for the features to be defined.
- **Extensions.** This program allows the equipment number, extension number, Class of Service (features allowed), toll access, Busy Lamp Field assignment and Pickup Group assignment, for each extension to be made.
- **Hunt Groups.** This program allows the extensions within each Hunt Group to be specified, together with the Hunt Group master number (access code).
- **Trunks.** This program allows each trunk to be described in terms of the equipment number, trunk type, listed directory number, day and night numbers, busy lamp number, COS and toll access.
- **Trunk Group.** This program allows the trunks within each group to be specified, together with trunk group type, access code and overflow group.

Reason for Issue

1.02 This Section is issued to provide the ACD programming information for SX-100/SX-200 ACD Systems.

1.03 Other additional service programs, dependent upon the type of software Generic installed in the system, may be implemented. These are listed below and include relevant MITEL Practice references, which should be consulted for descriptions and programming requirements.

(a) Traffic Measurement: see Section MITL9105/9110-090-450-NA.

(b) Multi-Digit Toll Control: see Section MITL9105/9110-090-212-NA.

(c) Station Message Detail Recording: see Section MITL9105/9110-090-451-NA.

(d) Speed Call: see Section MITL9105/9110-090-220-NA.

(e) Automatic Route Selection: see Section MITL9105/9110-090-213-NA.

(f) Automatic Call Distribution: see Section MITL9105/9110-090-222-NA.

Purpose

1.04 This Section consists of three parts, each part explaining a different facet of the system programming.

Part 1 General – general description of system programming contents and purpose of the programming manual.

Part 2 Program Description – a description of each program and definition of each entry and possible response.

Part 3 Programming – a general introduction to the system programming and MITEL Action Procedures (MAPs), which detail how to use each program. When entering data, the system checks each entry to ensure that the codes entered are correct, and if an error is detected, it sounds the console ringer and displays the required error code. These codes and their meaning are defined in this Part.

2. PROGRAM DESCRIPTION

General

2.01 Because the system is controlled by a processor, data describing each extension, trunk, feature etc. must be entered into the system. This is done by pressing keys and dialing codes. The codes dialed are held in the system memories and used by the system during call processing. Seven basic programs are provided which allow data to be entered into the system as equipment is added, or existing data to be changed or removed as the system configuration changes. The following paragraphs describe the seven programs (see 1.01). These programs specify the keys to be pressed and explain the entries that may be made. The Appendices to this Section contain an introduction to MITEL Action Procedures (MAPs) and the actual MAPs which detail each step in system programming. A complete description of each feature and option is given in Section MITL9105/9110-090-105-NA, Features and Services Description. Other types of programs are referenced in 1.03.

System Options

2.03 The system options are selected by the console keys, as described below:

- **OPTION.** This key selects the option program which allows the system to set-up or change the active option list. The code entered (Table 2-1) after selecting the option program, defines the option to be added or removed from the active option list; see Table 2-2 for possible option conflicts.

- **ADD.** When pressed, this key adds the option code to the active system option list, making the option available for use by the system.

- **DELETE.** Pressing the DELETE Key, after dialing an option code, removes the code from the active option list inhibiting further use of that option.

- **CANCEL.** As entries are made during the option program, they are stored in a temporary memory. If after making a number of entries, an error is discovered, all new entries may be removed by pressing the CANCEL Key.

- **ENTER.** After all entries have been made to the system option, they may be moved from the temporary storage to permanent storage by pressing the ENTER Key. Additional changes may be made by reentering the option program.

Class-of-Service Options

2.04 Each system may contain up to 16 different Classes of Service (COS). The COS defines which of the available options (Table 2-3) are active, and therefore available for use by any extensions assigned that COS.

2.05 The individual Classes of Service (COS) are selected by the console keys, as described below:

- **COS DEFINE.** This key selects the Class-of-Service program which permits changes to be made to any of the 16 individual COS. The entry made after selecting the program identifies which COS is to be modified.

- **OPTION.** The code entered (Table 2-3), after pressing the OPTION key, defines the extension option which is to be added or removed from the COS specified.

- **ADD.** Add the option to this COS.

- **DELETE.** Remove the option from the COS.

TABLE 2-1
SYSTEM OPTIONS

R1

Option Number	Option	Description
100	BELL OFF Enable	Enables the BELL OFF button. If this option is not selected, the "BELL OFF" button is ineffective; i.e., the console ringer cannot be turned off.
101	BOTH Button Enable	Enables the "BOTH" button. If this feature is not selected, the supervisor will be able to split between source and destination, but will not be able to speak to both source and destination at the same time.
102	Both Mode Standard	Causes the supervisor to be normally connected to both the Source and Destination of calls through the console. Manual splitting can be achieved using the SOURCE and DEST buttons. If this option is not selected, the console will operate in an automatic split mode; i.e., the supervisor will always be split toward the source upon answering calls, and will be split toward the destination as soon as the destination number is dialed. Manual splitting can still be achieved using the SOURCE and DEST buttons.
103	Supervisor Busy Override	Allows supervisor override.
104	CALLBACK Button Enable	Enables the "CALLBACK" button; i.e., gives the supervisor access to the callback feature.
105	Controlled Station-to-Station Restriction Setup	Enables the CALL BLOCK button; i.e., allows the supervisor to inhibit calls between stations with "H/M Station-Station Restrict Applies" feature in their Class of Service. If this feature is selected, supervisor HOLD 4 button is unavailable.
106	SUPERSET 4™ Sub-Supervisor	This option, when enabled, allows the SUPERSET 4 to be a Sub-Supervisor position. All calls handled by the SUPERSET will recall to the SUPERSET.
106	Supervisor Camp-On	Allows supervisor camp-on. If this option is not selected, pressing the RELEASE button when attempting to connect a call to a busy station, will release the call. See "Supervisor-Timed Recall Camp-On" options.
107	Supervisor CO Trunk - CO Trunk Connect Enable	Allows the supervisor to make CO trunk to CO trunk connections via the console.
108	Supervisor CO Trunk - Non-CO Trunk Connect Enable	Allows the supervisor to make CO trunk to non-CO trunk connections via the console.
109	Supervisor Non-CO Trunk - Non-CO Trunk	Allows the supervisor to connect non-CO trunks together via the console.

TABLE 2-1 (CONT'D)
SYSTEM OPTIONS

Option Number	Option	Description
110	Supervisor Conference	Allows supervisor conference.
111	Supervisor DISA Code Setup Enable	Allows the supervisor to change the Direct Inward Systems Access (DISA) security code from the console.
112	Do Not Disturb and Message Waiting Display	Enable the supervisor to display which extensions have Do Not Disturb active and extensions that have a message waiting active.
113	GUEST ROOM Button Enable	Allows use of the GUEST ROOM button which allows the supervisor to display and change the feature in use by a hotel room.
115	Lockout Alarm Enable	Causes a minor alarm when an extension is locked out.
116	New Call Tone Enable	Causes the first incoming call to signal the supervisor with a single tone ringer burst, if the supervisor is already busy on another call. If the option is not selected, incoming calls which arrive while the supervisor is handling another call, will not provide any audible signal, until the supervisor releases from that call.
117	PAGE Button Enable	Allows the supervisor access to the paging equipment by pressing the PAGE button.
118	Supervisor Printer Control Enable	This option allows the supervisor to control the printer from the console.
119	ROOM STATUS Button Enable	Allows the supervisor to display and change status of a hotel room.
120	Supervisor Serial Call	Allows supervisor serial call. If this option is selected, hotel/motel guest room capability is unavailable unless the FLASH button is programmed as the SERIAL CALL button (System Option 121).
121	Serial Call Override Flash Button	This option allows both the Guest Room feature and the Serial Call feature to be used in the same system. This is done by enabling the FLASH button as the SERIAL CALL button.
122	Supervisor Station Busy-Out Enable	Enables the supervisor to make an extension inoperative and to also remove the busy-out condition.
123	Supervisor-Timed Recall Camp-On 20 seconds	Causes Supervisor-Timed Recall Camp-On after 20 seconds.

TABLE 2-1 (CONT'D)
SYSTEM OPTIONS

Option Number	Option	Description
124	Supervisor-Timed Recall Camp-On 40 seconds	Causes Supervisor-Timed Recall Camp-On after 40 seconds. If neither of these two options is selected, the Supervisor Camp-On Recall time-out will be 30 seconds. These time-outs are only effective if the "Supervisor Camp-On" feature has been selected.
125	Supervisor-Timed Recall - Don't Answer 10 s	This option, when set, recalls supervisor-handled calls (to the supervisor that are not answered within 10 s) to the Supervisor Console.
126	Supervisor-Timed Recall Don't Answer - 20 seconds	Causes Supervisor-Timed Recall Don't Answer after 20 seconds.
127	Supervisor-Timed Recall Don't Answer - 40 seconds	Causes Supervisor-Timed Recall Don't Answer after 40 seconds. If neither of these two options is selected, Supervisor Timed Recall Don't Answer will be 30 seconds.
128	Supervisor-Timed Recall Hold, 20 seconds	Causes Recall Hold after 20 seconds.
129	Supervisor-Timed Recall Hold, 40 seconds	Causes Recall Hold after 40 seconds. If neither of these two options is selected, Supervisor Recall Hold time will be 30 seconds.
130	Trunk Busy-out Enable	Allows the supervisor to "busy-out" and "debusy" individual trunks. If this option is not selected, the supervisor will still be able to access individual trunks, but will not be able to busy them out or remove a busy-out condition.
131	MONITOR Override FLASH Key	If this option is enabled the FLASH will become the MONITOR Key.
133	DID, CCSA to Non-CO Trunks via Supervisor Inhibit	Prevents DID trunks from being connected to Non-CO trunks via the supervisor.
134	End of Dial Signal for Outgoing Trunks (#)	Enables the use of the octothorp (#) button to signal end of dialing to the system on outgoing trunk calls from the supervisor console or extension.
135	DID/Dial-In/CCSA Vacant/ Illegal Intercept to Supervisor	This option causes calls on DID/Dial-In and CCSA trunk calls that attempt access to a vacant or not-allowed number, to intercept to the supervisor.
136	Illegal Access Intercept to Supervisor	Causes all calls, other than DID or Dial-In Tie Trunk calls to unauthorized access codes, to be routed to the supervisor for intercept. If this option is not selected, such calls will receive reorder tone.

TABLE 2-1 (CONT'D)
SYSTEM OPTIONS

Option Number	Option	Description
137	Vacant Number Intercept to Supervisor	Causes all calls, other than DID or Dial-In Tie Trunk calls to vacant levels and numbers, to be routed to the supervisor for intercept. If this option is not selected, such calls will receive reorder tone.
138	Do Not Disturb Intercept to the Supervisor	Causes calls directed to extensions with Do Not Disturb active to be routed to the supervisor.
150	24-Hour Clock	Enables the console digital clock to display 24-hour time. If this option is not selected, the clock will display 12-hour time.
151	Data Demultiplexer Enable	This option allows the RS232 information to be output to four different recording devices through a Data De-multiplexer see Section MITL9160-080-300-NA.
152	DID Intercept to the Supervisor	This option, when set, allows vacant or illegal DID calls to be intercepted to the supervisor.
153	Digit Translation Plan 1	If this option is selected the digit: 1 produces 2 pulses, 2 produces 3 pulses, 3 produces 4 pulses, 4 produces 5 pulses, 5 produces 6 pulses, 6 produces 7 pulses, 7 produces 8 pulses, 8 produces 9 pulses, 9 produces 10 pulses, 0 produces 1 pulse.
154	Digit Translation Plan 2	If this option is selected the digit: 1 produces 9 pulses, 2 produces 8 pulses, 3 produces 7 pulses, 4 produces 6 pulses, 5 produces 5 pulses, 6 produces 4 pulses, 7 produces 3 pulses, 8 produces 2 pulses, 9 produces 1 pulses, 0 produces 1 pulse.

TABLE 2-1 (CONT'D)
SYSTEM OPTIONS

Option Number	Option	Description
155	Digit Translation Plan 3	If this option is selected the digit: 1 produces 10 pulses, 2 produces 9 pulses, 3 produces 8 pulses, 4 produces 7 pulses, 5 produces 6 pulses, 6 produces 5 pulses, 7 produces 4 pulses, 8 produces 3 pulses, 9 produces 2 pulses, 0 produces 1 pulse.
156	Flexible Night Service	Enables flexible night service.
157	Identified Trunk Group Enable	This option allows trunks to be programmed as Identified Trunks.
158	Incoming to Outgoing Call Forwarding Enable	This option allows incoming calls to be forwarded (by speed call) to an external number.
159	Inhibit Automatic Supervision	This option allows an Incoming tie to dial a CO trunk through the system. This allows any supervisions from the CO to be passed on to the tie trunk.
160	Limited Wait for Dial Tone	Limits the "Wait for Dial Tone" Trunk Group option to wait a maximum of 5 seconds and then, cut through even if no dial tone is detected. If this option is not selected, there is no time limit on the "Wait for Dial Tone" Trunk Group option.
161	Music on Hold Disable	If Music on Hold is not provided, this option should be selected.
162	Night Bell 3 with Minor Alarm Enable	This option allows Night Bell 3 to be rung in the event of a minor system alarm.
163	Night Service Automatic Switching	Enables night service automatic switching.
164	Night Service Time-Out 20 seconds	Sets night service automatic switching at 20 seconds.
165	Night Service Time-Out 40 seconds	Sets night service automatic switching time-out at 40 seconds. If neither of these two options is selected, the night service automatic switching time-out will be 30 seconds. These time-outs are only effective if the night service automatic switching option has been selected.

TABLE 2-1 (CONT'D)
SYSTEM OPTIONS

Option Number	Option	Description
166	Remote System Reset - Protection Override	This option allows the system to be reset from the test line on the console, without setting the thumbwheel switches on the Tone Control card to 777n.
167	Final Ring Time-Out: 1 minute	If this option is selected, the ringing time-out will be reduced to 1 minute (from 5 minutes).
168	System ID Enable	This option allows the System ID to be printed with all Traffic Measurements, Data Dumps and SMDR reports.
169	Station Transfer Security Partial Inhibit	Sets the minimum switchhook flash time as 250 ms.
171	Digits Store and Forward	This option when enabled causes the system to store all digits dialed before seizing a trunk and outpulsing.
172	Receiver Time-Out 15 seconds	This option changes the receiver time-out on trunk calls to 15 seconds.
180	Can Flash if Talking to Station	Allows extensions to switchhook flash on extension calls.
181	Can Flash if Talking to an Incoming Trunk	Allows extensions to switchhook flash on incoming trunk calls.
182	Can Flash if Talking to an Outgoing Trunk	Allows extensions to switchhook flash on outgoing trunk calls.
183	Cannot Dial a Trunk After Flashing	Inhibits dialing a trunk after flashing. This option does not apply to dialing a trunk for broker's call.
184	Cannot Dial a Trunk After Flashing if Holding or in Conference with a Trunk	Inhibits dialing a trunk after flashing, only if the existing call has a trunk party. This option does not apply to broker's call.
185	Discriminating Dial Tone	An extension having Do Not Disturb or Call Forwarding Follow Me in effect, will receive a distinct dial tone.
186	Discriminating Ringing	Enables discriminating ringing for trunk and supervisor-handled calls.
187	Controlled Station Restriction Setup	Enables the (DO NOT DISTB) button; i.e., allows the supervisor to use the controlled station restriction feature.
188	Extension Non-Co Trunk to Trunk Connect Enable	This option allows an extension to connect a non-CO trunk to a CO trunk, then go on-hook and leave the two trunks connected.

TABLE 2-1 (CONT'D)
SYSTEM OPTIONS

Option Number	Option	Description
189	Flash Timer - 0.7 second	Sets the switchhook flash recognition time to lie between 190 ms and 700 ms.
190	Flash Timer - 0.9 second	Sets the switchhook flash recognition time to lie between 190 ms and 900 ms.
191	Flash Timer - 1.1 second	Set the switchhook flash recognition time to lie between 190 ms and 1100 ms.
192	Message Registration Enable	Allows the system to keep count of the number of completed local Central Office calls made from each extension.
193	Message Registration Count Additional Supervisions	Counts all real (pseudo answer supervisions are ignored) answer supervisions received during each call.
194	Message Registration Timer 20 seconds	Causes a single pseudo answer supervision signal to be generated after 20 seconds if the serving CO does not provide answer supervision.
195	Message Registration Timer 40 seconds	Causes a pseudo answer supervision signal to be generated after 40 seconds, if the serving CO does not provide answer supervision. If neither of these two options are selected, the pseudo answer supervision signal is generated after 30 seconds. If both options are enabled the answer supervision is generated after 60 seconds.
196	Message Registration Multiplier - 2 units	Multiplies the Message Register count by 2.
197	Message Registration Multiplier - 3 units	Multiplies the Message Register count by 3.
198	Message Registration Multiplier - 4 units	Multiplies the Message Register count by 4.
199	Message Registration Surcharge - 1 unit	Adds a surcharge of 1 unit to the FIRST answer supervision signal received.
200	Message Registration Surcharge - 2 units	Adds a surcharge of 2 units to the FIRST answer supervision signal received.
201	Message Registration Surcharge - 3 units	Adds a surcharge of 3 units to the FIRST answer supervision signal received.
202	Message Registration Surcharge - 4 units	Adds a surcharge of 4 units to the FIRST answer supervision signal received.

TABLE 2-1 (CONT'D)
SYSTEM OPTIONS

Option Number	Option	Description
203	Message Registration Surcharge - 5 units	Adds a surcharge of 5 units to the FIRST answer supervision signal received on each call.
204	Message Registration Surcharge - 6 units	Adds a surcharge of 6 units to the FIRST answer supervision signal received on each call.
205	Message Registration Surcharge - 7 units	Adds a surcharge of 7 units to the FIRST answer supervision signal received on each call.
206	Message Registration Surcharge - 8 units	Adds a surcharge of 8 units to the FIRST answer supervision signal received on each call.
207	Discriminating Ringing All Calls	This option provides discriminating ringing on all calls - internal and external.
208	Outgoing Trunk Camp-On	Allows station camp-on feature to be used on trunks. If station camp-on is not enabled, this option is ineffective on trunks.
209	Outgoing Trunk Callback	Allows busy callback feature to be used on trunks.
210	Call Park Recall - 2 minutes	Sets the Call Park and Call Hold Recall time-out at 2 minutes.
211	Call Park Recall - 4 minutes	Sets the Call Park and Call Hold Recall time-out at 4 minutes. If neither of these two options is selected, the Call Park and Call Hold Recall timer will be 3 minutes. These time-outs are only effective if the "Call Park" or "Call Hold" stations feature has been selected.
212	Range Programming Enable	This option enables the Range Programming feature.
213	Single Digit Dialing Enable	Allows single digit codes to be used for special services even if the codes conflict with the numbering plan.
214	Single Digit Dialing Time-Out - 3 seconds	Completes a single digit dialed call after 3 seconds.
215	Single Digit Dialing Time-Out - 5 seconds	Completes a single digit dialed call after 5 seconds. If neither of these options are selected, single-digit calls are completed after 4 seconds.
217	Repeated Camp-On Tones - 5 seconds	This option, when enabled with the COS Option 107, specifies the repeated Camp-On to occur every 5 seconds. The call will not recall to the supervisor.

TABLE 2-1 (CONT'D)
SYSTEM OPTIONS

Option Number	Option	Description
218	Repeated Camp-on Tones 15 seconds	This option when enabled with the COS Option 107 specifies the repeated camp-on to occur every 15 seconds. The call will not recall to the supervisor.
219	TAFAS Available During Day	Enables TAFAS during day.
220	Transfer Dial Tone	Enables transfer dial tone.
230	Account Code Enable	This option enables the Account Code Feature.
232	Account Code Length: - 4 Digits	This option specifies the Account Code length to be 4 digits.
233	Account Code Length: - 8 Digits	This option specifies the Account Code length to be 8 digits.
234	Account Code Length: - 12 Digits	This option specifies the Account Code length to be 12 digits.
235	Variable Length Account Codes	This option allows Account Codes to be of a variable length up to 12 digits.
238	ARS Enable	This option enables the ARS feature.
239	ARS: Return Dial Tone	If this option is selected, dial tone will be returned after dialing the ARS code. This will encourage the user to continue dialing, after the ARS code has been dialed.
240	ARS Dial Tone Time-Out 5 seconds	If this option is selected, "Dial 0" long-distance calls are subject to a 5 second time-out (on first digit zero).
241	ARS Dial Tone Time-Out 10 seconds	If this option is selected, "Dial 0" long-distance calls are subject to a 10 second time-out (on first digit zero).
242	ARS Interchangeable Office Code Enable	Allows area and office codes to be used interchangeably.
245	Automatic Wake-Up Enable	Allows the supervisor to enable the system to ring an extension at a prearranged time.
246	Wake-Up Alarm Enable	This option allows an extension to set its own Wake-Up alarm.
247	Automatic Wake-Up Music on Hold	This option allows an extension answering a Wake-Up call to receive Music on Hold.

TABLE 2-1 (CONT'D)
SYSTEM OPTIONS

Option Number	Option	Description
248	Automatic Wake-Up Print	This option enables all Wake-Ups that are attempted, not answered and answered, to be printed.
253	Call Forwarding Busy (System DID, Dial-In CCSA)	Enables the DID, Dial-In, or CCSA Trunk Call Forwarding - Busy feature.
254	Call Forwarding - Don't Answer Time-Out (System, DID, Dial-In, CCSA)	Enables the DID, Dial-In, or CCSA trunk Call Forwarding - Don't Answer feature. See Call Forwarding - Don't Answer Time-Out system options.
255	Call Forwarding Don't Answer Time-Out - 10 seconds	This option limits the Call Forwarding Don't Answer Time-Out to l0 seconds.
256	Call Forwarding - Don't Answer Time-Out - 20 seconds	Causes Call Forwarding Don't Answer to forward after 20 seconds of ringing.
257	Call Forwarding - Don't Answer Time-Out - 40 seconds	Causes Call Forwarding Don't Answer to forward after 40 seconds of ringing. If neither of these two options is selected, the Call Forwarding Don't Answer time-out will be 30 seconds. These time-outs are only effective, if the "Call Forwarding Don't Answer" features are selected. The time-out selected will apply to both the station and system features.
258	Controlled Outgoing Restriction Setup	Enables the (ROOM RESTR) button; i.e., allows the supervisor to set up the controlled outgoing restriction feature. If this feature is selected, Night Service 2 is not available.
259	Customer Print-out Enable	This option allows the Customer RAM data to be output in a logical format on a printer.
260	Customer Programming Enable	This option enables programming from the supervisor console by the supervisor.
261	Customer Programming of ARS Enable	This option enables ARS definition by the supervisor.
262	Customer Programming of COS Definitions Enable	This option enables COS definition by the supervisor.
263	Customer Programming of Extensions Enable	This option enables Extension definition by the supervisor.
264	Customer Programming of Features Enable	This option enables Feature definition (of access codes) by the supervisor.

TABLE 2-1 (CONT'D)
SYSTEM OPTIONS

Option Number	Option	Description
265	Customer Programming of Hunt Groups Enable	This option enables Hunt Group definition by the supervisor.
266	Customer Programming of Speed Call Enable	This option enables Speed Call definition by the supervisor.
267	Customer Programming of System Options Enable	This option enables System Option programming by the supervisor.
268	Customer Programming of Toll Control Enable	This option enables Toll Control definition by the supervisor.
269	Customer Programming of Trunk Groups Enable	This option enables Trunk Group definition by the supervisor.
270	Customer Programming of Trunks Enable	This option enables Trunk definition by the supervisor.
271	Customer Range Programming Enable	This option enables Range programming.
272	Customer Programming of SUPERSET 4 Enable	This option, when set, allows the supervisor to program equipment as SUPERSET 4s or change the programming of a SUPERSET 4.
273	External Call Forwarding Enable	This option enables the External Call - Forwarding feature.
274	Hands-free Enable	This option enables the Hands-free feature.
275	Message Waiting Setup (Bell)	Enables the "MSGE WAIT" button and allows the supervisor to cause the system to distinctively ring extension every 20 minutes, to signal a "message waiting" condition.
276	Message Waiting Setup (Lamp)	Enables the "MSGE WAIT" button and allows the supervisor to cause the system to light "message waiting" lamps on extension.
277	Station Message Detail Recording Outgoing Calls	This option when activated initiates SMDR on outgoing calls.
278	Station Message Detail Recording Incoming Calls	This option when enabled initiates SMDR on all incoming calls.
279	SMDR: Record Only Incoming CO Calls (CCSA & Non-Dial Tie Trunks)	This option records all incoming calls in the switch.

TABLE 2-1 (CONT'D)
SYSTEM OPTIONS

Option Number	Option	Description
280	SMDR: Record Meter Pulses	This option allows the system to record all meter pulses from the CO.
281	SMDR: Drop Incomplete Outgoing Call	If this option is selected, outgoing calls that are not complete are not recorded.
282	SMDR: Drop Calls of Less than 8 Digits	This option will eliminate all trunk calls of eight digits or less from the SMDR records.
283	SMDR Extended Record	This option allows the length of the SMDR record to be extended from 80 to 88 characters. This allows the last four digits to 12-digit Account Codes and the system ID to be printed.
284	SMDR: Indicate Long Calls	This option flags all calls that are longer than 5 minutes.
285	SMDR Overwrite Enable	If this option is enabled SMDR record buffers will be written over when the printer has been suspended (*14*) and all the buffers are full.
286	Special ANI Feature	This option enables the special Automatic Number Identification feature.
287	Speed Call Enable	This option enables the system Speed Call feature.
288	Speed Call Programming Enable	This option allows the supervisor to program a Common Use table.
289	Speed Call Confidential Number Display	This option allows the supervisor to observe a Common Use number.
291	First Digit Toll Deny	Causes toll denial if the first digit dialed is 1, 0, * or #. If this option is not selected, toll denial will be on the first or second digit.
292	Multi-Digit Toll Control Enable	This option enables the Multi-Digit Toll Control feature.
295	Traffic Measurement Autoprint	This option allows traffic data to be output automatically at the end of each hour.
296	Traffic Measurement: Compact Traffic Report	This option causes the Traffic Measurements to be output in a compact format.
297	Traffic Measurement: Console Function Enable	If this option is selected, the Traffic Measurement may be controlled from the Supervisor Console.
298	Traffic Measurement Enable	This option enables the Traffic Measurement feature.

TABLE 2-1 (CONT'D)
SYSTEM OPTIONS

Option Number	Option	Description
299	Traffic Measurement: Extreme Value Mode	This option allows an active register's contents to be transferred to a storage register, if the active register is greater than the storage register.
300	Traffic Measurement Polling	This option allows traffic data to be polled by an external device.
310	MITEL Printer Condensed SMDR Print	This option when used with the MITEL printer will condense the print-out from 132 to 88 characters.
311	Ignore Print Enable	Allows the supervisor to dial a code that will purge and ignore the RS232 output.
312	Message Register & Message Waiting Change Print Enable	This option allows all Message Registers and Message Waiting to be printed.
313	Printer Carriage Return Delay	This option allows additional time for the printer carriage to return.
314	Printer Transmit Additional Nulls	This option allows the transmission of additional nulls to the printer.
315	Print-outs: Extra Line Feeds	This option allows for two extra line feeds for the printer in Hotel/Motel applications.
316	Room Message Register Audit Enable	This option allows an audit of all extension Message Registers that have any contents.
317	Room Status Audit Enable	This option will allow the Room Status of all rooms to be printed.
318	Zero Message Register After Room Register Audit	If this option is selected, the Message Registers will be will be zeroed after an audit.
330	SUPERSET Disconnect Alarm	This option raises a minor alarm at the Supervisor Console if a SUPERSET 4 is disconnected.
331	SUPERSET Immediate Line Selection Enable	This option allows the SUPERSET 4 user to always have a free line to access.
332	SUPERSET 4 Last Number Redial Enable	This option allows the SUPERSET 4 user to use a softkey on the SUPERSET as a last number redial.
334	SUPERSET 4 Auto-Hold Disable	This option disables the auto-hold button on the SUPERSET 4.

TABLE 2-2
SYSTEM OPTION CONFLICTS R1

The following System Options are mutually exclusive; i.e., they cannot be simultaneously enabled on the same system.

208 and 286	Outgoing Trunk Camp-On & Special ANI Feature.
209 and 286	Outgoing Trunk Callback & Special ANI Feature.
209 and 230	Outgoing Trunk Callback & Account Code Enable.
120 and 113	Supervisor Serial Call & GUEST ROOM Button Enable.
120 and 119	Room Status Enable & Supervisor Serial Call.
296 and 275	Message Waiting Setups (lamp or bell).
248 and 300	Automatic Wake-Up Print & Traffic Measurement Polling.
316 and 300	Room Audit Enable & Traffic Measurement Polling.
317 and 300	Message Register Print & Traffic Measurement Polling.
312 and 300	Message Register and Message Waiting Change Print Enable & Traffic Measurement Polling.
300 and 295	Traffic Measurement Polling & Traffic Measurement Autoprint.

In addition to the above system options, some console service features are mutually exclusive. These features are listed below:

ROOM RESTRICT and NIGHT 2
ROOM STATUS and NIGHT 2
CALL BLOCK and HOLD 4
SERIAL CALL and GUEST ROOM (Unless System Option 121 is enabled)

Note: The Room Restriction and Room Status features utilize the same button, but are not mutually exclusive, as the Room Status feature can be arranged to include the Room Restriction function, if System Option 258 is selected.

- **CANCEL.** If, after entering a number of codes for a COS, an error is discovered, the new entries may be removed from the system by pressing the CANCEL Key.

- **ENTER.** After all entries have been made for the COS, the entries may be transferred to permanent storage by pressing the ENTER Key.

Feature Access Codes

2.06 A number of features (Table 2-4) require access codes to allow the extension users to select and use the features. Each feature access code must be unique within the system. The feature access codes are programmed from the console keys as described below:

- **FEATURE.** This key selects the feature program and allows the access codes to be defined. The number dialed (Table 2-4), after pressing the FEATURE Key, specifies the feature to which the access code is to be assigned.

- **ACCESS CODE.** After pressing this key, the number dialed (1 to 4 digits) is assigned as the access code of the feature selected. The system, automatically, checks to see if the code is assigned

to any other equipment or feature within the system, and if a match is found, displays an error message.

- **CANCEL.** The access just assigned to a feature may be removed by pressing the CANCEL Key. The new access code may be assigned immediately.

- **DELETE.** Pressing this key deletes the access code assigned to the feature, rendering the feature inoperative.

- **ENTER.** Transfers all new entries to permanent memory.

Extensions

2.07 The extension program allows all data associated with extensions to be specified, changed, or removed from the system memories. The extension program is selected by the console keys as described below:

- **RANGE.** To enable faster programming, extensions may be programmed in a range (i.e., extension numbers 200-250). The following information must be common for the range: Hunt Group, COS and Toll Control. A starting and ending point must be defined for equipment numbers, and a starting point must be defined for busy lamp numbers and extension access codes. No conflicts are allowed with equipment numbers, extension access codes busy lamp numbers and Hunt Groups.

- **EXTN.** Pressing this key enables the extension program, which allows new data to be entered or existing data to be changed or removed.

- **EQPT NUMBER.** The number (1-112, 161-256), entered after pressing the EQPT NUMBER Key, defines the equipment number of the line circuit serving the extension (Figure 2-1).

- **EXTN NUMBER.** The 1-, 2-, 3- or 4-digit number entered after pressing the EXTN NUMBER Key specifies the extension number of the telephone set being added or changed. This number must not conflict with other extension numbers or access codes. If nonconflicting single digit dialing is required, enter N# , where N is the single digit.

- **COS NUMBER.** The number (1-16) entered after pressing the COS NUMBER Key, specifies the Class of Service, and therefore the features, that may be accessed by the extension (see 2.04 Class-of-Service Option).

- **TOLL DENY.** Each extension may be defined as TOLL-ALLOWED - allowed to originate calls to the toll network; or TOLL-DENIED - not allowed to make calls to the toll network. To make the extension TOLL-ALLOWED, press the TOLL DENY Key, then the DELETE Key. To make the extension TOLL-DENIED, press the

TOLL DENY Key, then the ADD Key. The extension will be TOLL-DENIED, only if the extension and the Trunk Group are TOLL-DENIED. This allows Toll Denial on a Trunk Group basis if System Option 292 was enabled. See also Section MITL9105/9110-096-212-NA, Multi-Digit Toll Control.

- **BUSY LAMP NUMBER.** After pressing this key, the number entered (1-200) defines the position (Figure 2-2) of the busy lamp to be associated with the extension. If the extension is not to be assigned a busy lamp, no entry is required.

- **DELETE.** Pressing the DELETE Key removes the existing busy lamp assignment.

- **PICKUP GROUP.** The system may hold up to 30 independent Call Pickup Groups. An extension may be made a member of any group, by entering the Pickup Group number after pressing the PICKUP GROUP Key. Any number of extensions may be assigned to a Pickup Group, but an extension may only be a member of one group at any time.

- **CANCEL.** Pressing the CANCEL Key, prior to the operation of the ENTER Key, removes any data entered during the foregoing Extension Program sequence.

- **ENTER.** Transfer all new data for the extension to permanent memory.

TABLE 2-3
CLASS-OF-SERVICE OPTIONS R1

Option Number	Option	Description
33	Automatic Callback	Allows Automatic Callback - Busy and Automatic Callback - Don't Answer. See system option Outgoing Trunk Callback.
34	Call Forwarding - Busy	Allows Call Forwarding - Busy.
35	Call Forwarding - Don't Answer	Allows Call Forwarding - Don't Answer.
36	Call Forwarding - Follow Me	Allows Call Forwarding - Follow Me.
37	Call Park	Allows Call Park. See "Park Recall" system options.
38	Never a Forwardee	Prevents calls being forwarded to this line.
39	Directed Call Pickup	Allows Directed Call Pickup - this is required for remote access of Call Park.
40	Executive Busy Override	Allows Executive Busy Override.
41	Data Security	Provides security against any audio intrusion.
42	Station Override Security	Provides security against Executive Busy Override.
43	Inward Restriction (DID)	Denies Direct-In-Dial calls.
44	Originate Only	Denies all incoming calls.
45	Receive Only	Denies all outgoing calls.
46	Flash Disable	Inhibits recognition of switchhook flash.
47	Never a Consultee	Denies incoming calls that originated from a Consultation Hold.
48	Broker's Call	Allows Broker's Call. Denies transfer and add-on. Cannot be provided together with Station Conference, or Flash for Supervisor.
49	Station Conference	Allows Station-Controlled Conference.
50	Meet-Me Conference	Allows access to Meet-Me Conference.
51	Camp-On	Allows Station Camp-On. See system option "Outgoing Trunk Camp-On".
52	Do Not Overflow	Prevents an extension from accessing trunk groups via overflow.

TABLE 2-3 (CONT'D)
CLASS-OF-SERVICE OPTIONS

Option Number	Option	Description
53	Pager Access	Allows access to both paging amplifiers.
54	TAFAS Access	Allows Trunk Answer From Any Station access.
55	Hold Pickup	Allows access to the Hold Pickup feature.
56	Account Code Access	Allows an extension to use an account code on trunk calls.
57	Manual Line	Routes all originating calls directly to the supervisor for completion.
58	Contact Monitor	Allows the line to be used for contact monitoring and to call the supervisor upon detection of contact closure.
59	Non-CO Trunk via Supervisor Inhibit	Denies access to non-CO trunks via the supervisor.
60	CO Trunks via Supervisor Inhibit	Denies access to CO trunks via the supervisor.
61	No Dial Tone	Denies dial tone to originating calls from incoming tie-lines.
62	Flash for Supervisor	Provides automatic connection to the Supervisor Console when the switchhook is flashed (Supervisor Transfer). Cannot be provided together with Broker's Call, Consultation Hold, Transfer and Add-On, or Station Conference.
63	H/M Stn-Stn Restrict Applies	Allows controlled station-to-station restriction to apply, when activated by the supervisor. See system option "Controlled Station-to-Station Restriction".
64	Message Register	Allows the system to keep count of the local call units made from this extension.
65	Trunk Group 1	Allows access to individual trunk groups.
66	Trunk Group 2	Allows access to individual trunk groups.
67	Trunk Group 3	Allows access to individual trunk groups.
68	Trunk Group 4	Allows access to individual trunk groups.
69	Trunk Group 5	Allows access to individual trunk groups.
70	Trunk Group 6	Allows access to individual trunk groups.

TABLE 2-3 (CONT'D)
CLASS-OF-SERVICE OPTIONS

Option Number	Option	Description
71	Trunk Group 7	Allows access to individual trunk groups.
72	Trunk Group 8	Allows access to individual trunk groups.
73	Trunk Group 9	Allows access to individual trunk groups.
74	Trunk Group 10	Allows access to individual trunk groups.
75	Trunk Group 11	Allows access to individual trunk groups.
76	Trunk Group 12	Allows access to individual trunk groups.
77	Message Waiting Applies	Allows the supervisor to set a message waiting indication at the extension.
78	Room Do Not Disturb Setup Enable	Allows the extension user to set up and cancel Do Not Disturb for the extension - by dialing appropriate access codes.
79	Call Hold and Retrieve Access	Allows the extension access to the Call Hold and Retrieve feature.
80	Room Status Applies	Allows the Room Status of the extension to be displayed at the Supervisor Console.
81	Call Forwarding System Inhibit	The system Call Forwarding options 149 and 150 are inactive on extensions with this Class-of-Service option.
82	Alarm Call Setup Enable	Allows either the extension to change or cancel its own wake-up time.
83	Forced Account Code Entry	An extension, with this option in its COS, must dial a 1- to 12-digit Account Code before dialing a client's number.
84	No SMDR Record Applies	An extension with this option in its COS will not be recorded by Station Message Detail Recording.
85	Speed Call Table 1 & 2 Access	Allows access to common-use Speed Call tables specified.
86	Speed Call Table 3 & 4 Access	Allows access to common-use Speed Call tables specified.
87	Speed Call Table 5 & 6 Access	Allows access to common-use Speed Call tables specified.
88	Speed Call Table 7 & 8 Access	Allows access to common-use Speed Call tables specified.

TABLE 2-3 (CONT'D)
CLASS-OF-SERVICE OPTIONS

Option Number	Option	Description
89	Speed Call Table 9 & 10 Access	Allows access to common-use Speed Call tables specified.
90	Speed Call Table 11 & 12 Access	Allows access to common-use Speed Call tables specified.
91	Speed Call Table 13 & 14 Access	Allows access to common-use Speed Call tables specified.
92	Speed Call Table 15 & 16 Access	Allows access to common-use Speed Call tables specified.
93	Speed Call Table 17 & 18 Access	Allows access to common-use Speed Call tables specified.
94	Cannot Dial a Trunk After Flashing	An extension, with this option in its COS, will not be able to dial a trunk after flashing.
95	Incoming Trunk Rotary Dial Only	An incoming trunk, with this option in its COS, will ignore DTMF signaling.
96	ARS Restricted	An extension, with this option in its COS, will not have access to the last route selected by ARS.
97	External Call Forwarding Connect Enable	An extension must have this option in its COS, in order to have a call it makes to an extension with External Call Forwarding in effect completed.
98	Transfer with Privacy	An extension with this option in its COS will be able to: put a call on hold, dial a new number and consult privately or hang up and the call on hold and the new number will be connected.
99	Hands-free Station	An extension with this option in its COS need not go off-hook to answer a call since it should be in the off-hook position.
100	ARS Allowed	An ARS user with this option will be able to access a Trunk Group, even though the user's COS was not enabled for that Trunk Group. This will occur when the ARS feature finds that the only Trunk Group free is not in the user's COS but will force a connection. This option must be enabled for an extension to use ARS.
101	Earth Ground Button	This option allows the use of a Earth Ground button on an extension's telephone set. Note: A special line card is required when using this COS option.

TABLE 2-3 (CONT'D)
CLASS-OF-SERVICE OPTIONS

Option Number	Option	Description
102	Call Announce Port	This COS option allows a SUPERSET 4 user to use an alternate equipment number as an announcement port.
103	Extension Call Forwarding Reset	This option allows an extension to clear Call Forwarding at another extension by using the access code for feature number 48.
106	SUPERSET Sub-Supervisor Enable	This COS option allows a SUPERSET 4 to be used as sub-supervisor position. All calls handled to the sub-supervisor will recall to the sub-supervisor.
107	Repeated Camp-On Beeps	This COS option, when enabled in an extension or trunk's COS, will enable the trunk or extension to camp-on to a party and not recall. The camped-on to party will receive continous camp-on tones at 5, 10 or 15 second intervals (as programmed). If neither System Options 217 or 218 are programmed, the repeated tones will be every 10 seconds.
108	SUPERSET Background Music	This option, when enabled, allows the SUPERSET 4 user to access the Music on Hold path and listen to the music by pressing the softkey indicating the musical note.
109	SUPERSET 4 Sub-Supervisor Programming of Messages	This option allows only the sub-supervisor to program the SUPERSET messages.
110	Special DISA Access Code	If this option is enabled in a DISA trunk's COS the incoming caller need only dial the Verifiable Account code to dial back out of the system. If this option is not enabled both the DISA code and the Account Code would have to be dialed.
111	DISA/Extension Routing Direct to ARS	If this option is enabled in a DISA or extension's COS routes all calls are made on the trunk or extension through the ARS feature.
112	Off-Premise Extension	This option must be enabled for any off-premise extension.
113	ARS Disallow Schedule A	This option when enabled restricts access to ARS Schedule A.
114	ARS Disallow Schedule B	This option when enabled restricts access to ARS Schedule B.
115	ARS Disallow Schedule C	This option when enabled restricts access to ARS Schedule C.

TABLE 2-3 (CONT'D)
CLASS-OF-SERVICE OPTIONS

Option Number	Option	Description
116	ARS Limited Access	This option when enabled restricts access to trunks routed by ARS to trunks in the caller's COS.
117	Agent Call Distribution	This option when enabled specifies that the extension is an Agent in Agent Group.
118	ARS Most Expensive Route Warning Tone	This option when enabled provides an audible tone indication to SUPERSET 3 and standard telephones and a visual note (EXPENSIVE ROUTE) to SUPERSET 4 users when the last ARS route is used.
119	Low Conference Gain Enable	This option enables the low gain feature of the system during conferencing. If this option is not enabled high gain will be employed.
120	Privacy Disable	This Option disables privacy on Key Line appearances.

CLASS-OF-SERVICE
Option Conflicts

45	Receive Only	and	58	Contact Monitor
46	Flash Disable	and	48	Broker's Call
46	Flash Disable	and	49	Station Conference
46	Flash Disable	and	62	Flash for Supervisor
48	Broker's Call	and	49	Station Conference
62	Flash for Supervisor	and	49	Station Conference
62	Flash for Supervisor	and	48	Broker's Call

TABLE 2-4
FEATURE ASSIGNMENTS R1

Feature Number	Description
1	Supervisor Access
2	Callback - Don't Answer
3	Call Forwarding - Busy
4	Call Forwarding - Don't Answer
5	Call Forwarding - Follow Me
6	Call Park
7	Dial Call Pickup
8	Directed Call Pickup
9	Meet-Me Conference
10	Pager 1
11	Pager 2
12	Hold Pickup Access
13	Pager 1 and 2
14	TAFAS-All
15	TAFAS-1
16	TAFAS-2
17	TAFAS-3
18	Supervisor Function
19	Maintenance Function
20	DID Supervisor Access Code
21	Direct Inward System Access
22	Executive Busy Override (Single Digit)†
23	Callback - Busy (Single Digit)†
24	Room Do Not Disturb Setup and Cancel
25	Call Hold
26	Call Retrieve (Local)
27	Call Retrieve (Remote)
28	Room Status Update (Maid in Room)
29	Programming Security Code
30	Alarm Call
31	Account Code
32	Speed Call
33-42	Assign access codes features 33-42 for Trunk Group 1 if necessary
43	Customer Programming Security Code
44	ARS Access Code
45	Hands-free Activation
46	Call Forwarding Busy/Don't Answer
47	Extension Reset
48	SUPERSET 4 Loopback Test
49	ACD Agent

† First digit conflicts between these codes and other access codes are allowed. See Section MITL9105/9110-090-105-NA for complete description of feature operation.

HARDWARE POSITION NUMBER	PLUG 7						PLUG 9						PLUG 11										EXTENSION UNIT NO.	TRUNK UNIT NO. (4 TRUNK)	TRUNK UNIT NO. (2 TRUNK)
	161	169	177	185	193	201	209	217	225	233	241	249											1		
	162	170	178	186	194	202	210	218	226	234	242	250											2	1	1
	163	171	179	187	195	203	211	219	227	235	243	251											3		
	164	172	180	188	196	204	212	220	228	236	244	252											4	2	
	165	173	181	189	197	205	213	221	229	237	245	253											5		
	166	174	182	190	198	206	214	222	230	238	246	254											6	3	2
	167	175	183	191	199	207	215	223	231	239	247	255											7		
	168	176	184	192	200	208	216	224	232	240	248	256											8	4	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	CARD POSITION		
	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	SLOT NUMBER		
	PLUG 8						PLUG 10						PLUG 12												

SHELF 2 (SX-200 ONLY)

HARDWARE POSITION NUMBER	PLUG 1						PLUG 3						PLUG 5										EXTENSION UNIT NO.	TRUNK UNIT NO. (4 TRUNK)	TRUNK UNIT NO. (2 TRUNK)
	001	009	017	025	033	041	049	057	065	073	081	089	097	105	113								1		
	002	010	018	026	034	042	050	058	066	074	082	090	098	106	114								2	1	1
	003	011	019	027	035	043	051	059	067	075	083	091	099	107	115				RESERVED				3		
	004	012	020	028	036	044	052	060	068	076	084	092	100	108	116				FOR				4	2	
	005	013	021	029	037	045	053	061	069	077	085	093	101	109	117				COMMON				5		
	006	014	022	030	038	046	054	062	070	078	086	094	102	110	118				CONTROLS				6	3	2
	007	015	023	031	039	047	055	063	071	079	087	095	103	111	119								7		
	008	016	024	032	040	048	056	064	072	080	088	096	104	112	120								8	4	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	CARD POSITION		
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	SLOT NUMBER		
	PLUG 2						PLUG 4						PLUG 6												

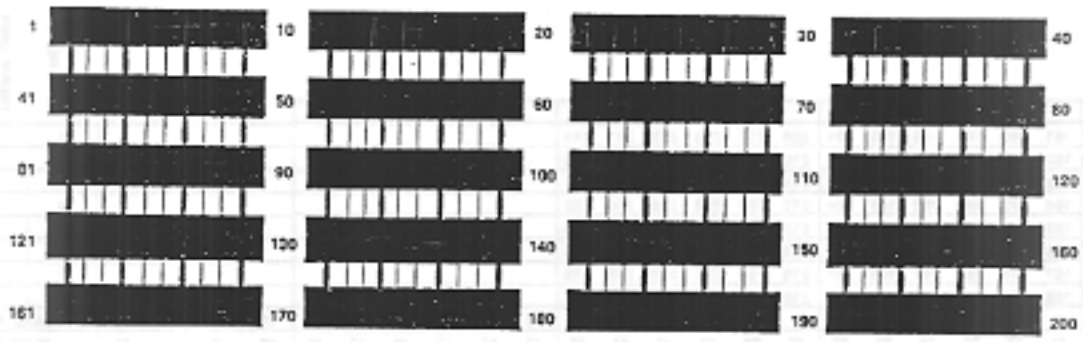
CONSOLE CONTROL/RCP CARD
CONSOLE CONTROL CARD
TONE CONTROL

SHELF 1

NOTES:
1. DUAL AND OR QUAD RECEIVER EQUIPMENT NUMBERS ARE 090, 098, 106, 114, 092, 100, 108 AND 116.
2. QUAD RECEIVER EQUIPMENT NUMBERS ARE 094, 102, 110, 118, 096, 104, 112 AND 120.
3. EQUIPMENT POSITION 001 IS RESERVED FOR THE TEST LINE AND MUST THEREFORE BE EQUIPPED WITH A LINE CARD.
4. TRUNK EQUIPMENT NUMBER IS SAME AS INDIVIDUAL TRUNK ACCESS CODE.
5. SLOT 15 IS RESERVED FOR RECEIVER NO. 1.
6. MAXIMUM NUMBER OF SUPERSET 4s = 64
7. THE EQUIPMENT NUMBERS FOR RAC'S WILL BE THE SECOND AND SIXTH EQUIPMENT NUMBERS OF THE SLOT THE CARD IS IN.

T642

Figure 2-1 Equipment Number



200 Lamp Console

X3481

Figure 2-2A Busy Lamp Position Numbering

Hunt Groups

2.08 The system can hold up to 12 different Hunt Groups. Each Hunt Group may contain an unlimited number of members and be specified as:

- **TERMINAL HUNTING.** The Hunt Group sequence starts at the first equipment number and ends at the last number in the hunt chain. The call is completed at the first idle number encountered.

- **CIRCULAR HUNTING.** Hunting starts at the last equipment number reached and hunts over all members of the Hunt Group. The call is completed at the first idle number found.

- **SECRETARIAL HUNTING.** This is terminal hunting where the last number is common to two or more extension Hunt Groups.

- **DUAL NUMBER ACCESS.** An extension may be programmed to allow it to be accessed by two different numbers. The first number is assigned when programming the extension and the second number by programming a Hunt Group with the extension as the only member. The extension may therefore be accessed by dialing the extension number or the Hunt Group

master number (see Section MITL9105/9110-090-105-NA Single Digit Dialing).

Note: When changing the list of members of a Hunt Group in any way, all members of the Hunt Group must be reentered.

2.09 The following console keys are activated to program the Hunt Groups:

- **HUNT GROUP.** Allows the Hunt Group required to be selected by dialing the Hunt Group number (1-12).
- **ACCESS CODE.** Allows the 1-, 2-, 3- or 4-digit code identifying the Hunt Group master number to be entered.
- **DELETE.** Pressing this key deletes the Hunt Group from the system memory.
- **EQPT NUMBER.** This key must be pressed before dialing the equipment number of each extension in the Hunt Group. If circular hunting is to be defined, the last entry in the hunt group must be the same as the first entry. Membership in a Hunt Group is mutually exclusive with "message registration" and "room status" for this extension.
- **CANCEL.** Deletes all new data entered associated with the Hunt Group.
- **ENTER.** Transfers all new data for the Hunt Group to permanent memory.

Trunks

2.10 This program allows the type console appearances, day and night assignment, COS and toll deny codes of each trunk to be specified.

2.11 The following console keys are employed to enter this program:

- **TRUNK.** Selects the trunk program
- **EQPT NUMBER.** The number entered (10-112; 162-256, even numbers only) specifies the equipment number of the trunk circuit serving this trunk (Figure 2-1).
- **TYPE.** The code entered, defines the type of trunk being specified.
  - Code 1 - CO trunk + VNL
  - Code 2 - DISA trunk + VNL
  - Code 3 - DID trunk + VNL

- Code 4 - Dial-In tie trunk + VNL
- Code 5 - Non Dial-in tie trunk + VNL
- Code 6 - CCSA trunk + VNL
- Code 11 - CO trunk + NON VNL
- Code 21 - DISA trunk + NON VNL
- Code 31 - D ID trunk + NON VNL
- Code 41 - Dial-In tie trunk + NON VNL
- Code 51 - Non Dial-In tie trunk + NON VNL
- Code 61 - CCSA trunk + NON VNL

- **DELETE.** If this key is pressed, the information associated with this trunk is removed from the system memory.
- **BUSY LAMP NUMBER.** The number (1-200) defines the position (Figure 2-2) of the busy lamp to be associated with this trunk. If the trunk is not to be assigned, a busy lamp no entry is required.
- **DELETE.** If this key is pressed, the busy lamp assignment for this trunk is deleted.
- **LDN NUMBER (Types 1, 5, 11, 51 only).** This single digit entry defines the Listed Directory Number Key (LDN 1, 2, 3 or 4) on the Supervisor Console which is to be associated with the trunk. If the trunk is not to appear on the supervisor console, no entry is required. DID trunk calls to the supervisor always appear on LDN 4.
- **DAY NUMBER (Types 1, 5, 11, 51 only).** The code entered for Day Number specifies any special assignments of the trunk during normal daytime service. These assignments may be:
  - no assignment to bells, extensions or Hunt Groups, console appearance only (Default code #0)
  - assigned to ring bell 1, code #1
  - assigned to ring bell 2, code #2
  - assigned to ring bell 3, code #3
  - assigned to one extension - enter equipment number of extension
  - assigned to a Hunt Group, codes 1 to 12.

- **I/C (Types 3, 6, 31, 61 only).** This 2- or 3-digit entry for DID or CCSA trunks defines the number of incoming digits, the number of digits to be absorbed; and the digit to be added to the incoming number after absorption.

- **NIGHT 1 (Types 1, 5, 11, 51 only).** This entry defines the assignment of the trunk during Night Service 1. Assignment is made in the same manner as for DAY NUMBER assignment.

- **NIGHT 2.** The entry defines the assignment of the trunk during Night Service 2. This assignment is made in the same manner as for DAY NUMBER assignment.

- **COS NUMBER (Types 2, 4, 21, 41 only).** The number (1-16) entered, after pressing this key, specifies the Class of Service and therefore the features, that may be accessed by the dial-in trunk. See 2.04 Class-of-Service Option.

- **TOLL DENY (Types 2, 4, 21, 41 only).** Each dial-in trunk may be defined as TOLL-ALLOWED - allowed to originate calls to the toll network; or TOLL-DENIED - not allowed to make calls to the toll network. To make the tie trunk TOLL-ALLOWED, press the TOLL DENY Key, then the DELETE Key. To make the tie trunk TOLL-DENIED, press the TOLL DENY Key, then the ADD Key. If System Option 292 is enabled, see also Section MITL9105/9110-090-212-NA Multi-Digit Toll Control.

- **CANCEL.** Pressing this key, prior to the operation of the ENTER Key, removes any data entered in the temporary storage.

- **ENTER.** Deletes previous data associated with this trunk and stores the new data.

Trunk Groups

2.12 The Trunk Group program specifies the trunks forming the Trunk Group, the restrictions and options common to all trunks in the group. The Trunk Group may employ terminal or circular hunting (see 2.08). When making any change to the list of members of a Trunk Group, all members of the group must be reentered. The following console keys are activated to program the Trunk Groups:

- **TRUNK GROUP.** The number (1-12) entered specifies the Trunk Group to be set up or changed.

- **ACCESS CODE.** Allows the 1-, 2-, 3- or 4-digit code identifying the Trunk Group to be specified.

- **DELETE.** Pressing this key deletes the Trunk Group from the system memory.

- **TYPE.** The 4-digit code entered after pressing the TYPE Key specifies the Trunk Group type parameters as detailed in Table 2-5.

- **TOLL DENY.** Each Trunk Group may be specified as TOLL-ALLOWED - allowed to originate calls to the toll network, or TOLL-DENIED - not allowed to make calls to the toll network. To make the Trunk Group TOLL-ALLOWED, press the TOLL DENY Key, then the DELETE Key. To make the Trunk Group TOLL-DENIED, press the TOLL DENY Key, then the ADD Key. Toll Denial is effective only when both the Trunk Group and the extension or dial-in trunk involved are TOLL DENIED and are ignored by the System. This prevents circumvention of the toll denial by dialing a fast valid digit before CO dial tone is received.

- **OVERFLOW.** The number entered (1-12) specifies the trunk overflow group number. If all trunks within the Trunk Group being defined are busy, any additional calls directed to the Trunk Group will be rerouted to the overflow group. Overflow arrangements which direct the callback to the original group must NOT be specified.

- **EQPT NUMBER.** This key must be pressed before dialing the equipment number (2-112; 162-256) of each trunk in the group. If circular hunting is to be defined, the last entry in the Hunt Group must be the same as the first entry. If circular hunting is not required, the Trunk Group is terminal hunting (see 2.08).

- **CANCEL.** Pressing the CANCEL Key removes all new data entered for the Trunk Group, leaving any existing data unchanged.

- **ENTER.** Removes all old data associated with the Trunk Group and transfers the new data entered to permanent memory.

3. PROGRAMMING

General

3.01 After all installation procedures have been completed in accordance with Section MITL9109/9110-090-200-NA, the system should be programmed as detailed in the MITEL Action Procedures (MAPs) contained in Appendices 1 and 2. Each MAP in Appendix 2 also contains a sample programming form pertinent to the MAP.

Error/Confirm Codes

3.02 During standard system programming, the console DESTINATION display may show "error" or "confirm" codes, with the meanings indicated in Tables 3-1 and 3-2, respectively. These tables also indicate required action when the code is displayed. In the extended programming mode, errors may also be displayed at the console. Tables 3-3, 3-4, 3-5 and 3-6 show the meanings of these errors.

Supervisor Function Access Codes

3.03 Table 3-7 is a listing of the supervisor function access codes. To select any of the supervisor functions, the access code for feature 18 must have been dialed. The code * is used in Table 3-7.

Maintenance Function Access Codes

3.04 Table 3-8 lists the maintenance function access codes. To select any of the maintenance functions, the access code assigned for the maintenance function must be dialed (Feature Number 19). The code 555 is used in Table 3-8, for the maintenance code and may be dialed from the test line or console.

Supervisor Function Codes

3.05 The Supervisor Function Codes (Table 3-9) outline all the function codes necessary for the implementation of ACD.

Time-Out Information

3.06 During programming, it may be necessary to know the time-out information with regard to certain functions. Table 3-10 is such a listing of the time-out information.

TABLE 2-5
TRUNK GROUP TYPE CODES

R1

First Digit (Note 1)	Second Digit	Third Digit (Note 2)	Fourth Digit
1. No supervision	1. No Message Register	†1. Dial pulse, no wait for dial tone	1. CO trunk
2. Answer supervision	2. Message Register	†2 Dial pulse, wait for dial tone	2. Non-CO trunk
3. Toll Reversal	3. SMDR Enable and no Message Register	3. DTMF, no wait for dial tone	3. Identified Trunk Group (Type XX13) only is valid)
4. Outgoing audio inhibited until answer supervision	4. SMDR Enable and Message Register Enable	4. DTMF, wait for dial tone	

† If extensions are DTMF, the trunk will convert to dial pulse. Early line split is not provided. Trunks will repeat DTMF or dial pulse signals unless outgoing audio is inhibited.

Notes:

1.
- If answer supervision is not required (or not provided by the CO), then use 1 (No supervision).
- If trunks provide answer supervision and tandem trunking or message registration is used, then specify 2 (Answer supervision).
- If supervision is used to indicate toll calls, and this feature is required, then use 3 (Toll supervision).
- If audio cut-through on tie-trunk tandem calls is required only after receipt of answer supervision, then use 4 (Outgoing audio inhibit until answer supervision). In addition the audio is inhibited until timed out or unless a # is dialed.

2.
- If "wait for dial tone" is selected, then any digits dialed prior to receipt of CO dial tone

TABLE 3-1
PROGRAMMING ERROR CODES

R1

Error Code	Cause	Key Affected	Key Flashing	Meaning	Action Required
E0	Invalid key pressed.	ALL	NONE	The last key pressed is invalid at this time.	Check procedure and press correct key.
E1	Invalid number.	ALL	None	The number entered is out of range or contains corrupted data.	Press key associated with entry and re-entry number.
E2	Key other than ENTER CANCEL pressed.	LAMP TEST COS OPTION FEATURE EXTN NUMBER, TRUNK HUNT GROUP TRUNK GROUP NEXT, EQPT NUMBER	ENTER, CANCEL	An attempt was made to leave the current mode, after some parameters were changed, but before ENTER or CANCEL was pressed. ENTER may be used to write the new programming information back to the non-volatile RAM, or use CANCEL to ignore all programming changes made, since the last time ENTER was pressed.	Press ENTER to transfer the data to permanent or CANCEL to remove the data from the temporary store.
E3	Access code has not been entered.	HUNT GROUP, TRUNK GROUP	ACCESS CODE	Attempting to enter members into a Hunt or Trunk Group before an access code has been assigned to the group.	Press ACCESS CODE Key and enter required access code.
E4	The extension number or access code entered is already assigned.	EXTN, ACCESS CODE	None	The extension number of access code entered is already assigned to an extension, feature, Hunt Group or Trunk Group. In Trunk mode, an attempt is made to delete a member of a Trunk Group. Equipment numbers desired must be entered. In Trunk Group mode, an attempt is made to place a trunk into a Trunk Group while that trunk is currently programmed into another Trunk Group. Callback and Executive Override conflict, i.e., trying to enter a Callback code while same code is assigned to Executive Busy Override and vice versa.	Check code entered. 1. If code is correct, terminate entry, remove other appearance of code and reenter all new data. 2. If code is incorrect, press key associated with entry and reenter extension number or access code.
E5	Number entered contains incorrect number of digits or conflicting option enabled in this COS.	EXTN NUMBER, ACCESS CODE	None	The extension number or access code is in conflict with the existing numbering plan. Attempting to add an option to a COS in which a conflicting option is enabled. Attempting to add a System Option when a conflicting option exists.	Check entry. Press key associated with entry and reenter number.

TABLE 3-1 (CONT'D)
PROGRAMMING ERROR CODES

R1

Error Code	Cause	Key Affected	Key Flashing	Meaning	Action Required
E6				During trunk or extension programming and attempting to assign an equipment number as a line or a trunk when other equipment numbers previously programmed for that slot identify the slot as other than the type being programmed (i.e., line, trunk, or SUPERSET)	
E6				During trunk programming an attempt has been made to change the programming for the trunk and the trunk has an appearance on a SUPERSET 4. The trunk appearance must be deleted from any SUPERSET 4 keys before changing the trunk.	
E6				During extension programming an attempt has been made to delete an extension which has an appearance on a SUPERSET 4. The extension appearance must be deleted from any SUPERSET 4 keys before deleting the extension.	
E6	Incorrect equipment number entered.	EQPT NUMBER	None	Attempting to assign an equipment number that is: - undefined - defined as a trunk to an extension Hunt Group or extension - defined as an extension to a Trunk Group or a trunk - an extension with message registration to Hunt Group or Pickup Group. An equipment number assigned to an extension must be deleted as an extension, before being programmed as a trunk. An equipment number assigned to a trunk must be deleted as a trunk, before being programmed as an extension.	Remove conflicting option: (a) Assign equipment number correctly. (b) Enter new equipment number.
E6	In extension mode the equipment number assigned as a; call announce port, programmed SUPERSET or a single line set with appearances.	EQPT NUMBER	None	The equipment number selected to be programmed has already been programmed in SUPERSET programming as: a SUPERSET, single line set with appearances or an announce port.	Enter correct equipment number or delete conflicting SUPERSET programming.

TABLE 3-1 (CONT'D)
PROGRAMMING ERROR CODES

R1

Error Code	Cause	Key Affected	Key Flashing	Meaning	Action Required
E6	In trunk mode the trunk selected has appearances on a SUPERSET.	EQPT NUMBER	None	The trunk equipment number already has an appearance on a SUPERSET.	Delete appearances on SUPERSET.
E7	System is busy.	ENTER	None	(a) Attempting to initialize a system while System is in use. (b) Attempting to change data of an extension or trunk while that extension or trunk is in use. It must be idle or busied-out.	(a) Wait until system is idle. (b) Wait until extension or trunk is idle
	Extension has a message register that is not zeroed or has a message waiting, or has Do Not Disturb set.	ENTER	None	- A valid message register exists for this extension. - Extension has a message waiting or Do Not Disturb set.	Zero message register, reset message waiting or Do Not Disturb and reprogram.
E8	Trunk or equipment number already assigned.	ENTER	None		(a) Enter proper trunk or equipment number. (b) Press ENTER.
E9	Non-volatile RAM error	ENTER	None	Ones and Zeros test failed.	
E020			None		Non-volatile RAM must be initialized and/or re-programmed.
E022 -20	At Power Up		None		Non-volatile RAM must be initialized and/or reprogrammed.
E023 -20	At Power Up	None	None	RAM battery switches not enabled.	Turn RAM battery switches on.

TABLE 3-2
STANDARD CONFIRM CODES

R1

Confirm Code	Cause	Key Affected	Flashing Lamp	Action Required
CO	Attempting to assign an equipment number for an extension to a slot containing a trunk card	EQPT NUMBER	CONFIRM	Check assignment: - If correct, press CONFIRM key. Equipment number entered is accepted as the number for the equipment type being programmed. All data associated with the original appearance of the equipment number is removed. - If incorrect, press EQPT NUMBER and reenter new equipment number.
CO	Attempting to assign an equipment number for a trunk to an empty slot or a slot containing an extension card	EQPT NUMBER	CONFIRM	
C1	Attempting to assign an extension that already exists	EXTN NUMBER	CONFIRM	Check assignment: - If correct, press CONFIRM key. The extension number entered is accepted as the extension number for the equipment being defined. All data associated with the original appearance of the extension number is removed. - If incorrect, press EXTN NUMBER and reenter extension number.
C2	The busy lamp assignment already exists	BUSY LAMP	CONFIRM	Check assignment: - If correct, press CONFIRM Key. Busy lamp assignment is accepted for this equipment. All data associated with original assignment is removed. - If incorrect, press BUSY LAMP and reenter busy lamp assignment.

AUTOMATIC ROUTE SELECTION CONFIRM CODE

R1

Error	Applies to:	Meaning
C6	Area Code	A request has been made to delete all entries in a table.

TOLL CONTROL PROGRAMMING CONFIRM CODES

R1

Error	Applies to:	Meaning
C5	Control Plan mode Table mode	An attempt was made to assign a table which is currently assigned elsewhere. Pressing the confirm key will deassign the table from wherever it was previously assigned to assign it to the specified place.
C6	Table Mode	A request has been made to delete all entries in a table. If CONFIRM is pressed all entries will be deassigned. The old data in the non-volatile RAM will not be destroyed until the ENTER Key is pressed, and the table itself can be reprogrammed as desired before the ENTER Key is used.

TABLE 3-3
EXTENDED PROGRAMMING ERROR CODES - TOLL CONTROL R1

Error	Applies to:	Meaning
E0	All modes	Invalid key pressed. Consult MAP for correct procedure. System Option 292 may not be enabled.
E1	Trunk Group mode Control Plan mode	Number is not within the range of the parameter being defined. Reenter parameter key defined.
E2	All modes	An attempt was made to leave the current mode after some parameters were changed but before ENTER or CANCEL was pressed. ENTER may be used to write the new programming information back to the non-volatile RAM, or use CANCEL to ignore all programming changes made since the last time ENTER was pressed.
E3	Control Plan mode	The number entered is not valid. Reenter a number which is valid.
E4	Table mode	The table entry code is invalid for the table programmed. This occurs in the following situation: 1. A code of more than 3 digits in the length for an 800-entry or 20-range table. 2. A code not in the range of 200-999 for an 800-entry table. 3. A code which already exists or a code which would be ambiguous in conjunction with the existing table entries, for a 4-entry table.
E5	Table mode	The table is full and cannot hold the entry.
E7	Configuration mode	Initialization is not allowed because the Tone Control card switches are not 7776 or the system is not idle.
E9	Configuration mode	A hardware failure was detected while clearing the extended customer non-volatile RAM.

TABLE 3-4
EXTENDED PROGRAMMING ERROR CODES - SPEED CALL R1

Error Code	Key Involved	Explanation
E1	EQPT NUMBER	The Equipment Number entered is outside the range of valid numbers. Check procedures and press key, then redial proper digits.
E1	ACCESS NUMBER	The Access Number entered is not the first of the 5-number group. Enter the proper Access Number.
E1	NUMBER REDIAL	An invalid Number Redial value was entered. Enter the proper redial value.
E2	All modes	An attempt was made to leave the current mode after some parameters were changed but before ENTER or CANCEL was pressed. ENTER may be used to write the new programming information back to the non-volatile RAM, or use CANCEL to ignore all programming changes made since the last time ENTER was pressed.
E3	TABLE	The Table number entered is not allowed.
E4	ACCESS NUMBER	An attempt was made to enter an Access Number for a common-use table.
E4	NUMBER REDIAL	An attempt was made to enter a Number Redial digit for a common-use table.
E5	ACCESS NUMBER	The Access Number entered already exists for another table assigned to the same equipment number.
E5	NUMBER REDIAL	Number Redial already exists for another table assigned to the same equipment number (only 1 Number Redial attribute per user is allowed).
E6	SPEED CALL	Speed Call feature not enabled.

TABLE 3-5
EXTENDED PROGRAMMING ERROR CODES - AUTOMATIC ROUTE SELECTION R1

Error Code	Key Involved	Explanation
E0	All modes	Invalid key pressed.
E1	Area Code Table mode Office Code Table mode Routing Table mode Local Area mode Table Quantity mode	Number is not within range.
E2	All modes	An attempt was made to leave the current mode after parameters were changed, but before ENTER or CANCEL was pressed.
E3	Office Code mode	The Office Code table number is not valid for this configuration.
E4	Routing Table mode	An attempt was made to enter a trunk group number that is not defined.
E5	Office Code Table mode	The 9-entry Office Code Table is full and cannot hold the entry.
E6	Routing Table mode	Schedule A hours and Schedule B hours are not mutually exclusive.
E7	Configuration mode	Initialization is not allowed because the Tone Control card switches are not 7776 or the system is not idle.
E9	Configuration mode	A hardware failure was detected while clearing the extended customer non-volatile RAM.

TABLE 3-6
EXTENDED PROGRAMMING ERROR CODES - SUPERSET PROGRAMMING R1

Error Code	Key Involved	Explanation
EO		This error is given when entering SUPERSET programming if either the SUPERSETs are not enabled, or the supervisor attempts to use Customer Programming of SUPERSET and System Option 272 is not enabled. This error is also given throughout SUPERSET programming when an invalid key is pressed.
E1	PRIME KEY	Entering a SUPERSET equipment number as slot 1 (equipment numbers 001-008).
E1	PRIME KEY	Number out-of-range error. Given in PRIME KEY mode when attempting to enter COS number, Toll Deny, Busy Lamp number, Pickup Group number, or Call Announce Port number.
E3	SET EQPT NUMBER	Given when entering a SUPERSET equipment number if the number supplied is defined within the system as something other than a SUPERSET. Also given if the key type supplied is not valid.
E3	PRIME KEY	Attempting to assign an equipment number as a SUPERSET when other equipment numbers previously programmed for that slot identify the slot as other than a SUPERSET Line card.
E4	SET KEY NUMBER	Given if the key number supplies is invalid (other than 2-15).
E10	LISTED NUMBER	Directory number was not entered when attempting to define a Prime Key.
E11	TYPE	Type was not entered when attempting to define a Non-Prime Key.
E12	LISTED NUMBER	Directory number was not entered before defining a Non-Prime Key.
E13	TRUNK EQPT NUMBER	Trunk equipment number was not entered when required when defining a Non-Prime Key.
E20	LISTED NUMBER	The directory number supplied is conflicting with an existing system access code. This error is also given when attempting to add a key line appearance of a single line set. The appearance of a single line set must be multiple call.
E21	LISTED NUMBER	The directory supplied is invalid, because it would result in mixing key line and multiple call appearances with the same directory number. This error occurs when attempting to add a Non-Prime Key, and the directory number exists as either a prime with the wrong type of appearances or a primeless list of the wrong type (i.e., key line or multiple call).

TABLE 3-6 (CONT'D)
EXTENDED PROGRAMMING ERROR CODES - SUPERSET PROGRAMMING

Error Code	Key Involved	Explanation
E22	PRIME KEY	This occurs when attempting to add a prime, but the directory number supplied exists. and does not exist as a primeless list. This error is also given if the directory number supplied (when adding a prime) does not exist. but conflicts with an existing system access code.
E23	REVIEW	This is given in Review mode, when the directory number supplied does not exist, or is in conflict with an existing system access code.
E24	REVIEW	This is given in Review mode, when the directory number supplied exists, but not as either a prime line access code or the access code for a primeless appearance list. This error indicates in the first three digits of the SOURCE display who the actual owner is. If the first digit is 0: -000 - 135 equipment numbers 1 to 136 -136 - 147 Trunk Group numbers 1 to 12 -148 - 159 Hunt Group numbers 1 to 12 -160 - 255 equipment numbers 161 to 256 If the first digit is a 1: 000 - 063 service routines 1 to 64 (features)
E25	LISTED NUMBER	An attempt has been made to change the DN of a Prime Key, but the new directory number (listed number) is in use or is in conflict with an existing access code. The new listed number for a Prime Key must be unique, and cannot be that of a primeless list even.
E26	TRUNK EQPT NUMBER	The equipment number entered (after pressing TRUNK EQPT NUMBER) is not that of a defined CO trunk or Dial-In trunk. The equipment number entered here must have been defined in Standard Programming as a trunk. Also, if in Review mode, this error means that the equipment number entered (after pressing TRUNK EQPT NUMBER) has not been used for either a DTS or private line key.
E27		The trunk is currently assigned to a DTS appearance list. An attempt has been made to use it for a private line key.
E28		An attempt has been made to assign a port for call announce use but the port is currently programmed for another function. The call announce port must be dedicated to the call announce function.

TABLE 3-6 (CONT'D)
EXTENDED PROGRAMMING ERROR CODES - SUPERSET PROGRAMMING

Error Code	Key Involved	Explanation
E28	ANNOUNCE EQPT NUMBER	Attempting to assign an equipment number as a Call Announce Port when other equipment numbers previously programmed for that slot identify the slot as other than a Line card.
E30		An attempt has been made to delete a Prime Key (this is equivalent to deleting the set) and a Non-Prime Key on the set was defined. Before a set can be deleted, all Non-Prime keys must be undefined (deleted).
E31		An attempt has been made to define a Non-Prime Key when the prime for the equipment number has not yet been defined (the set itself has not been defined). The Prime Key must be the first key defined for a set.
E32	NEW SET EQPT NUMBER	When attempting to move a set the equipment number specified cannot be moved as it is not programmed as a SUPERSET.
E33	NEW SET EQPT NUMBER	When attempting to move a set to a new equipment number that has been programmed already.
E33	NEW SET EQPT	Attempting to move a SUPERSET to an equipment number when other equipment numbers previously programmed for that slot identify the slot as other than a SUPERSET Line card.
E40		A Prime Key is being added, and the listed number is the same as an existing primeless list. This can normally be done, but in this case the primeless list is not idle, so the addition of the prime cannot be performed.
E41		Addition of a key line appearance is attempted, but cannot be performed because the listed number is not idle. Or, addition of a DTS or private line was attempted, but cannot be performed because the trunk chosen for the key is not idle.
E42		An attempt has been made to delete a Prime Key, but the listed number is not completely idle. Note: All multiple call appearances of a prime must be idle if the prime is to be deleted, i.e., when a multiple call appearance 'somewhere' is busy it will prevent prime deletion although the prime appears idle. When this happens, use the REVIEW mode to find where all the appearances are, then delete each individually. The busy one will cause an error.

TABLE 3-6 (CONT'D)
EXTENDED PROGRAMMING ERROR CODES - SUPERSET PROGRAMMING

Error Code	Key Involved	Explanation
E43		An attempt was made to delete a prime, but the set has a message waiting, and deletion is not allowed.
E44		An attempt was made to delete a prime, but the set has a non-zero message register, and deletion is not allowed.
E45		An attempt was made to delete a Non-Prime Key, but the key was not idle, and deletion is not allowed. Also given when one of the Non-Prime keys is not idle when a deletion is attempted.
E50		An attempt was made to add a Prime Key, but 64 sets have already been defined.
E51		An attempt was made to add a Non-Prime which requires an internal system resource, of which all have been used. If any multiple call key, or an entire primeless key line list is deleted, one (1) resource will be freed.
E52		An attempt was made to add a Non-Prime Key which requires an internal system resource. This time, if either a complete DTS or private line list is deleted, one (1) internal resource will be freed.

Special set error numbers are arranged in groups, each numerical group having a general significance. The groups are:

- E0 - E9 No special significance.
- E10 - E19 The required parameters were not entered.
- E20 - E29 There are incompatibilities with the data base values and the parameter values being entered to define or change a key.
- E30 - E39 There are prerequisites to the operation being attempted which have not been satisfied.
- E40 - E49 The desired operation cannot be performed due to system activity involving the set or key selected.
- E50 - E59 The desired operation cannot be performed due to internal system limitations.

Note: An E5 error will be given when entering (or moving) a SUPERSET equipment number to a slot that would indicate more than eight slots programmed.

TABLE 3-7
SUPERVISOR FUNCTION ACCESS CODES

R3

These codes assume the use of * as the Supervisor Function code (Feature Number 18). For Supervisor Function codes used in Traffic Measurement see Section MITL9105/9110-090-450-NA.

To cancel all call forwarding:

a) Dial *1, or *11
b) Dial #
c) Press RELEASE button

To access an individual trunk:

a) Dial *20
b) Dial individual trunk access number (equipment number)
c) Dial *
d) Press RELEASE button

To force-release an individual trunk:

a) Dial *20
b) Dial individual trunk access number (equipment number)
c) Dial # #
d) Press RELEASE button

To make flexible night service assignments (Note 3):

a) Dial *3
b) Dial individual trunk access number (equipment number)
c) Press NIGHT 1 or NIGHT 2
d) Dial extension number
e) Press RELEASE button

To cancel all system callbacks:

a) Dial *4
b) Dial #
c) Press RELEASE button

To set the clock time:

a) Dial *5
b) Dial time (2-digit hour plus 2-digit minutes)
c) Dial * for p.m., otherwise a.m.
d) Press RELEASE button

To make Trunk Group supervisor access only:

a) Dial *6
b) Dial Trunk Group (1 through 10)
c) Dial *
d) Press RELEASE button

To make Trunk Group extension and supervisor access:

a) Dial *6
b) Dial trunk group (1 through 10)
c) Dial #
d) Press RELEASE button

To change the Direct Inward System Access Code:

a) Dial *7
b) Dial DISA code
c) Press RELEASE button

To cancel a minor alarm (Note 1):

a) Dial *8
b) Dial #
c) Press RELEASE button

To busy out an individual trunk (Note 3):

a) Dial *9
b) Dial individual access number (equipment number)
c) Dial *
d) Press RELEASE button

To de-busy an individual trunk (Note 3):

a) Dial *9
b) Dial individual trunk access number (equipment number)
c) Dial #
d) Press RELEASE button

To change the status of all occupied clean rooms to occupied and needs cleaning:

a) Dial *10
b) Dial *
c) Press RELEASE button

To change the status of all occupied rooms in the need of cleaning to occupied clean:

a) Dial *10
b) Dial #
c) Press RELEASE button

TABLE 3-7 (CONT'D)
SUPERVISOR FUNCTION ACCESS CODES

To set up call forwarding:

a) Dial ✳11nnn, where nnn is the extension number of the forwarding extension
b) Dial call forwarding code (1-4)
c) Dial mmm, where mmm is the number to which the calls are to be forwarded
d) Press RELEASE button

To cancel call forwarding for an extension:

a) Dial ✳11nnn, where nnn is the extension number of the forwarding extension
b) Dial #
c) Press RELEASE button

To display call forwarding set for an extension:

a) Dial ✳11nnn, where nnn is the extension number of the forwarding extension
b) Press RELEASE button

To cancel all call forwarding:

a) Dial ✳1# or ✳11#
b) Press RELEASE button

To busy out an extension (Note 3):

a) Dial ✳12nnn, where nnn is the number of the extension to be busied out
b) Dial ✳
c) Press RELEASE button

To de-busy an extension (Note 3):

a) Dial ✳12nnn, where nnn is the number of the extension to be de-busied
b) Dial #
c) Press RELEASE button

To suspend the printer (Note 3):

a) Dial ✳14✳
b) Press RELEASE button

To purge and ignore the printer (Note 3):

a) Dial ✳14 00
b) Press RELEASE button

To enable the printer (Note 3):

a) Dial ✳14 #
b) Press RELEASE button

To change the date:

a) Dial ✳15 and 3- or 4-digit date (1- or 2-digit month, 2-digit day)
b) Press RELEASE button

To print the room register audit (Notes 2 & 3):

a) Dial ✳16
b) Press RELEASE button

To change the system identity (Note 3):

a) Dial ✳17nnn (1- to 3-digit ID, 0-999)
b) Press RELEASE button

To display current system identity:

a) Dial ✳17
b) Press RELEASE button

To print the "room status" audit (Note 2):

a) Dial ✳18
b) Press RELEASE button

To print stored customer data (Note 4):

a) Dial ✳19 + n, where n is:
   - 0 A complete print (Note 5)
   - 1 System Options, Feature Acess Codes, Classes of Service, Hunt Groups and Extensions
   - 2 Trunk and Trunk Group Data
   - 3 Special Set Data
   - 4 Toll Control Data
   - 5 Speed Call Data
   - 6 Automatic Route Selection Data
   - ✳ System-Wide Data (Note 6)
b) Press RELEASE button

TABLE 3-7 (CONT'D)
SUPERVISOR FUNCTION ACCESS CODES

Notes

1. The errors will be sequentially stacked in the memory and may be recalled sequentially (most recent first) by repeating the above procedure.
2. Printer starts after RELEASE button is pressed.
3. Requires system option programming.
4. The customer must have programming access to the features in order to request a print-out.
5. This prints all sections provided the customer has programming access to the features.
6. This will print only the system-wide speed call tables and the system special set messages.

TABLE 3-8
MAINTENANCE FUNCTION ACCESS CODES (NOTE 1) R3

To select any of the functions, the access code assigned for the maintenance function must be dialed (Feature Number 19). The code 555 is used in the following part for the maintenance code. This may be dialed from the test line or console.

Clear all errors:

a) Dial 555 + 1

Direct trunk or station access:

a) Dial 555 + 20
b) Dial individual equipment number (3-digit equipment number for trunk or station)

Busy out of a receiver:

a) Dial 555 + 3
b) Dial equipment number of receiver

Busy out of a speech path:

a) Dial 555 + 33
b) Dial speech path number (01-31)

De-busy a receiver:

a) Dial 555 + 4
b) Dial equipment number of receiver

De-busy a speech path:

a) Dial 555 + 43
b) Dial speech path number (01-31)

Initialize card slot:

a) Dial 555 + 5
b) Dial card slot number (01-17, 31-42)

System reset (Notes 2 and 3):

a) Dial 555 + 6

To initiate system dump (from test line):

a) Dial 555 + 7 and hang up
b) Go off-hook
c) Dial 555 + 8 + # (or 2)

To initiate system dump (from console):

a) Dial 555 + 7
b) Dial *14#
c) Press RELEASE button

To suspend printer (Note 3):

a) Dial 555 + 8 + * (or 1), or
b) Dial *14* console only

To enable printer (Note 3):

a) Dial 555 + 8 + * (or 2), test line
b) Dial *14# console only
c) Press RELEASE button

To purge and ignore printer (Note 3):

a) Dial 555 + 8 + 00, test line
b) Dial *1400 console only
c) Press RELEASE button

To print stored Customer Data:

a) Dial 555 + 9 + n, where n is:
   - 0 A complete print (Note 4)
   - 1 System Options, Feature Access Codes, Classes of Service, Hunt Groups and Extensions
   - 2 Trunk and Trunk Group Data
   - 3 Special Set Data
   - 4 Toll Control Data
   - 5 Speed Call Data
   - 6 Automatic Route Selection Data
   - * System-Wide Data (Note 5)

b) Press RELEASE button

Notes:

1. For Traffic Measurement Access Codes see MITL9105/9110-090-450-NA.
2. The thumbwheel switches on the Tone Control card should be set to XXYX, where X = any digit 0 - 9 and Y cannot be the digit 7.
3. Requires System Option Programming.
4. This prints all sections.
5. This will print only the system-wide speed call tables and the system special set messages.

TABLE 3-9
SUPERVISOR FUNCTION CODES

To specify the maximum MTTA for each Agent Group, and at the same time the overflow destination for all incoming calls when the MTTA exceeds this maximum:

Dial *246
Dial Agent Group Access Code
Dial maximum time to answer, in seconds
Dial overflow Access Code (Agent/Recording Group, Supervisor)
Dial * to enter another Agent Group number or press the RELEASE button.

To display the current maximum time to answer and overflow code:

Dial *246
Dial Agent Group Access Code
Dial #
Press the RELEASE button to terminate display.

To specify the after-call work time applicable to all Agents in each Agent Group:

Dial *245
Dial Agent Group Access Code
Dial work time, in 2-digit seconds
Dial * to enter another Agent Group number or
Press the RELEASE button when finished.

To program a RAD:

Dial *230
Dial the RAD equipment number
Dial * to proceed to the next equipment
Press the RELEASE button.

To program a RAC:

Dial *231
Dial the RAC equipment number
Dial * to proceed to the next equipment
Press the RELEASE button.

To delete a RAD:

Dial *230
Dial the RAD equipment number
Dial #
Press the RELEASE button.

TABLE 3-9 (CONT'D)
SUPERVISOR FUNCTION CODES

To delete a RAC:

Dial *231
Dial the RAC equipment number
Dial #
Press the RELEASE button.

To review all defined RADs/RACs:

Dial *232* - the first RAD/RAC equipment number programmed will appear in the SOURCE display in the left corner and a 0 in the right corner to indicate a RAD or 1 in the right corner to indicate a RAC
Dial * to advance to next RAD/RAC or press the RELEASE button to terminate.

To record a message on the RAC:

Dial *240
Dial RAC equipment number
Dial *
Supervisor waits until a 50 msec 'beep' is heard
Supervisor speaks message (up to 8 seconds in duration) into handset
Press the RELEASE button when finished.

To playback a message from a RAC:

Dial *241
Dial RAC equipment number
Dial *
Message will be heard with handset, otherwise busy tone will be heard if the recording is currently in use
Press the RELEASE button to terminate.

To specify the length of the message:

Dial *242
Dial the Recording Group Access Code
Dial the recording duration, in 2-digit seconds.

To specify the recordings and delay times for an Agent Group:

Dial *243
Dial Agent Group Access Code
Dial recording number (1-4)
Dial Access Code
Dial time delay, in 2-digit seconds
Dial * to enter another recording number or
Press the RELEASE button.

TABLE 3-9 (CONT'D)
SUPERVISOR FUNCTION CODES

To review recording assignments:

Dial *244
Dial Agent Group Access Code
Dial recording number (1-4)
Dial * to review another recording assignment or
Press the RELEASE button.

To delete all data associated with an Agent Group (maximum MTTA, overflow specification, Recording Group and delay time assignments):

Dial *243
Dial Agent Group Access Code
Dial #
Press the RELEASE button.

To define which Recording Group a DID Intercept will be routed to:

Dial *233
Dial Recording Group Access Code
Press the RELEASE button.

To delete DID intercept routing:

Dial *233
Dial #
Press the RELEASE button.

To define which Recording Group an Automatic Wake-Up will be routed to.

Dial *234
Dial Recording Group Access Code
Press the RELEASE button.

To delete which Recording Group an Automatic Wake-Up will be routed to:

Dial *234
Dial #
Press the RELEASE button.

To examine the current status of an Agent Group:

Dial *247
Dial Agent Group Access Code
Press the RELEASE button to terminate.

TABLE 3-10
SYSTEM TIME-OUT INFORMATION R1

Description	Time-Out
Supervisor Timed Recall (Don't Answer)	10 s, 20 s, 30 s, or 40 s
Supervisor Timed Recall (Camp-On)	20 s, 30 s, or 40 s
Supervisor Timed Recall (Hold)	20 s, 30 s, or 40 s
Automatic Night Switching	20 s, 30 s, or 40 s
Dial Tone Time-Out	15 s
Interdigit Time-Out (Extensions)	15 s
Interdigit Time-Out (Trunks)	10 s
Lockout Time-Out	45 s
Callback Clear Time-Out	8 hours
Callback Don't Answer Reset	6 rings
Call Park Recall	2, 3 or 4 minutes
Call Hold Recall	2, 3 or 4 minutes
Call Forwarding - Don't Answer Time-Out	10 s, 20 s, 30 s, or 40 s
Call Forwarding Busy - Don't Answer Time-Out	10 s, 20 s, 30 s, or 40 s
Switchhook Flash	Min. 200 ms Max. 0.7 s, 0.9 s, 1.1 s or 1.5 s
Ringing Time-Out	5 minutes, 1 minute programmable
Automatic Wake-Up Ringing	6 rings, 3 s each
Automatic Wake-Up Attempts	3 at 5 minute Intervals

APPENDIX 1
MITEL ACTION PROCEDURES

GENERAL

A1.01 Task-oriented functions in this Section are implemented using MITEL Action Procedures (MAPs).

A1.02 A MAP is a step-by-step procedure using a flow chart principle, written and illustrated where necessary to a level of detail that allows both experienced and inexperienced personnel to carry out the tasks detailed. A MAP contains two levels of information as follows:

(a) For experienced personnel, a series of steps (level one) each numbered (n) and annotated with minimal information.

(b) For inexperienced personnel, each step referred to in (a) above is amplified by a connected series of numbered substeps (nA) (level two).

A1.03 A typical example of a MAP is shown in Figure A1-1, with the two levels detailed.

MAP SYMBOLS

A1.04 There are four basic symbol shapes which may be used in a MAP, and are defined as follows.

A1.05 AND Block: Used to indicate a level one step that must be performed. Consists of a square with the word AND centered in the block.

A1.06 OR Block: Used to indicate a choice of level one steps, one of which must be performed. Consists of a rectangle, with the text centered in the block, and the word OR appearing between the alternative operations.

A1.07 The rectangle is also used to border instructions which imply that the operator must perform a task outside the scope of the MAP. The text is centered in the rectangle.

A1.08 DECISION Block: Used to indicate a decision within the level one steps which must be made. The symbol is based on a hexagon with the top and bottom sides extended. Decision text is centered in the symbol.

A1.09 START/FINISH/JUMP TO Block: Used to indicate the start and finish of a MAP. Also used to indicate "jump to" points within the MAP, for example "go to (n)" or "from (n)" or "return to (n)". The

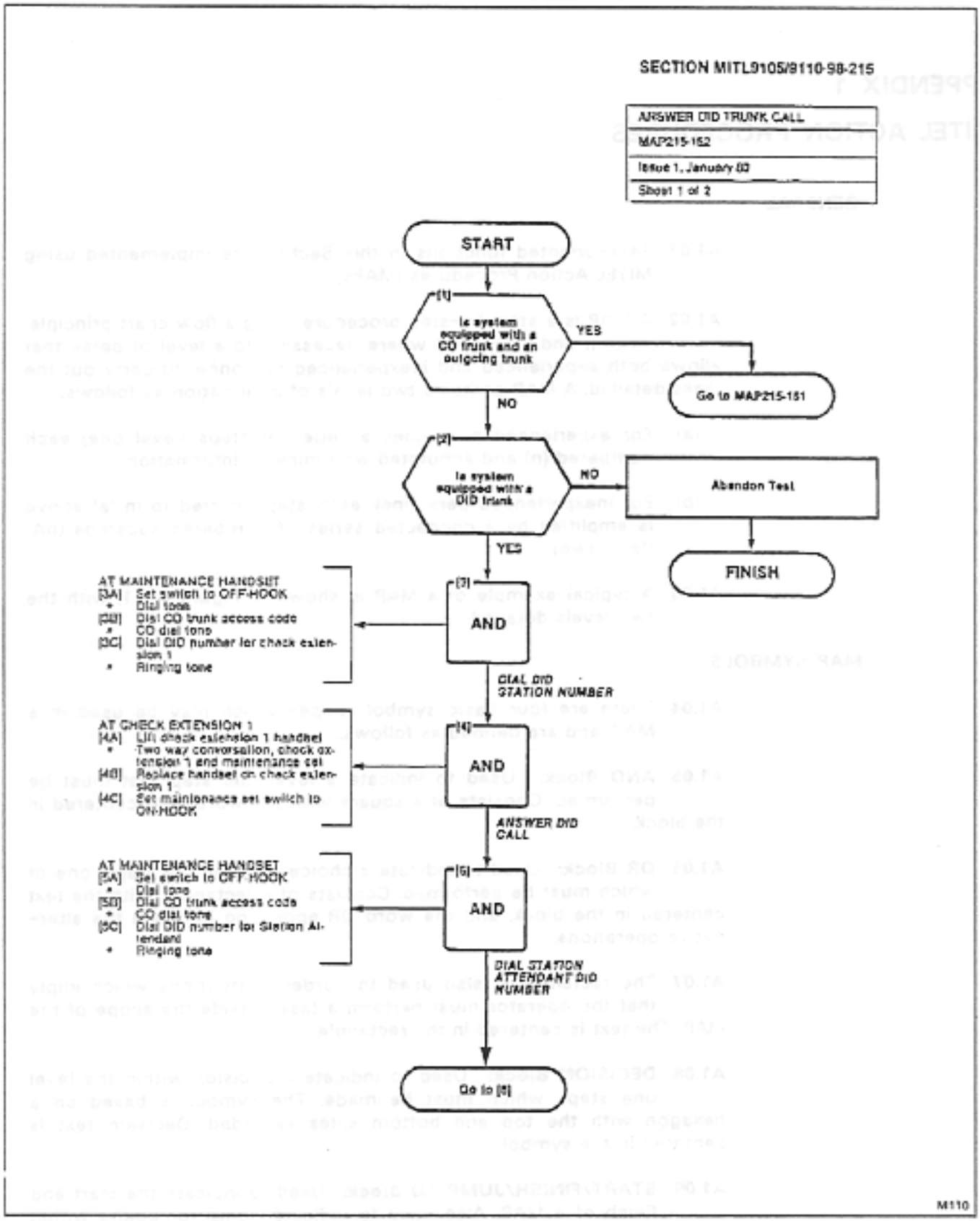


Figure A1-1 Typical MAP Page

symbol is a rectangle with semicircular ends. Text is centered in the symbol.

THE OPERATOR'S USE OF MAPS

Experienced Operator

A1.10 For the experienced operator to complete a task using a MAP, reference to the sequential short form level one step is usually all that is necessary. Using Figure A1-1 as an example, the experienced operator would proceed as follows.

A1.11 At (1) the operator makes a decision based on the information within the block. If the answer is YES, the operator must proceed to a different MAP. If the answer is NO, the operator is faced with another decision at block (2).

A1.12 At (2) if the decision is NO, there is no requirement to proceed further and the test is abandoned. This naturally results in a FINISH block. If the decision is YES, the operator proceeds to (3) and (4) in succession, i.e., dials the DID station number and completes the call to the check extension.

A1.13 The description of the instructions, carried out in A1.05 and A1.06 have assumed the level of competence of the operator, is such that short form level one steps contain sufficient information, and therefore, the operator reads only the center column of the MAP, top to bottom of the page.

A1.14 Using Figure A1-1 as an example, the path followed should be:

(a) At (1) and (2), make the decisions called for at these steps as before.

(b) At step (3), dial the DID station number by performing substeps (3A), (3B) and (3C).

TOOLS, TEST EQUIPMENT AND SPECIAL INSTRUCTIONS

A1.15 Any tools, test equipment or special instructions that the operator requires or needs to know are stated on the first page of each MAP. If the MAP is long, and contains a number of sub-procedures, these are listed in synopsis form on the first page.

APPENDIX 2

SYSTEM PROGRAMMING PROCEDURES

GENERAL

A2.01 This Appendix details the preferred order in which the SX-100/SX-200 system should be programmed for features and options required by the customer. This Appendix also includes procedures for programming Multi-Digit Toll Control, Speed Call and Automatic Route Selection.

A2.02 Table A2-1 details the order of the standard system programming procedures. Table A2-2 details the order of the Multi-Digit Toll Control programming procedures. Table A2-3 details the order of Speed Call programming of the system. Table A2-4 details the order of Route Selection programming of the system. Table A2-5 lists all SUPERSET 4 programming MAPs.

TABLE A2-1
STANDARD PROGRAMMING

Step	Title	MAP
1	System Programming	210-201
2	Select Programming Options	210-202
3	Program System Options	210-203
4	Program COS Options	210-204
5	Assign Feature Access Codes	210-205
6	Program Extensions	210-206
7	Program Extension Hunt Groups	210-207
8	Program Non-Dial-In Trunks	210-208
9	Program Dial-In Trunks	210-209
10	Program DID Trunks	210-210
11	Program Trunk Groups	210-211
12	Range Programming for Extensions	210-212
13	Terminating Standard Programming Mode	210-213

TABLE A2-2
MULTI DIGIT TOLL CONTROL

Order	Option	MAP No.
1	Selection of Extended Programming	210-221
2	Absorb Plan	210-222
3	Control Plan	210-223
4	Trunk Group Class of Restriction	210-224
5	Restriction Tables	210-225
6	Add an Entry	210-226
7	Displaying Sequential Entries	210-227
8	Search for an Entry	210-228
9	Delete an Entry	210-229
10	Terminating Programming	210-284

TABLE A2-3
SPEED CALL

Order	Option	MAP No.
1	Selection of Extended Programming	210-221
2	Programming Personal Tables	210-242
3	Convert Table from Personal to Common Use	210-243
4	Terminating Programming	210-284

TABLE A2-4
AUTOMATIC ROUTE SELECTION

Order	Option	MAP No.
1	Code Table Quantity Selection or Change	210-250
2	Area Code Table Programming	210-251
3	Review Area Code Table Programming	210-252
4	Delete an Area Code Table	210-253
5	Area Code/Office Code Programming	210-254
6	Review or Delete Part or All Area Code/Office Code	210-255
7	Program Modify Digits	210-256
8	To Review or Delete Modify Digit Tables	210-257
9	Route Table Programming	210-258
10	To Review or Delete a Route Table	210-259
11	Review or Delete Routes	210-260
12	Terminate Programming	210-284

TABLE A2-5
SUPERSET PROGRAMMING

Order	Option	MAP No.
1	Program a Prime Key	210-270
2	Program a Non-Prime Key	210-271
3	Delete a Non-Prime Key	210-272
4	Delete a Prime Key	210-273
5	Changing Any Key	210-274
6	Moving a SUPERSET 4	210-275
7	Review SUPERSET Programming	210-276

Button Definition

A2.03 For a description of buttons in each programming mode consult Table A2-6.

TABLE A2-6
BUTTON DESCRIPTIONS

Feature	Practice
Standard Programming	MITL9105/9110-090-315-NA
Multi Digit Toll Control	MITL9105/9110-090-315-NA MITL9105/9110-090-212-NA
Speed Call	MITL9105/9110-090-315-NA MITL9105/9110-090-220-NA
Automatic Route Selection	MITL9105/9110-090-315-NA MITL9105/9110-090-213-NA
SUPERSET 4	MITL9105/9110-090-315-NA

Programming Overlays

A2.04 The appropriate programming overlay must be used to program each feature. To ensure using the correct overlay see Table A2-7.

TABLE A2-7
PROGRAMMING OVERLAYS

Feature	Refer to Figure
Standard Programming	Figure A2-1
Multi Digit Toll Control	Figure A2-2
Speed Call	Figure A2-2
Automatic Route Selection	Figure A2-3
SUPERSET 4	Figure A2-4

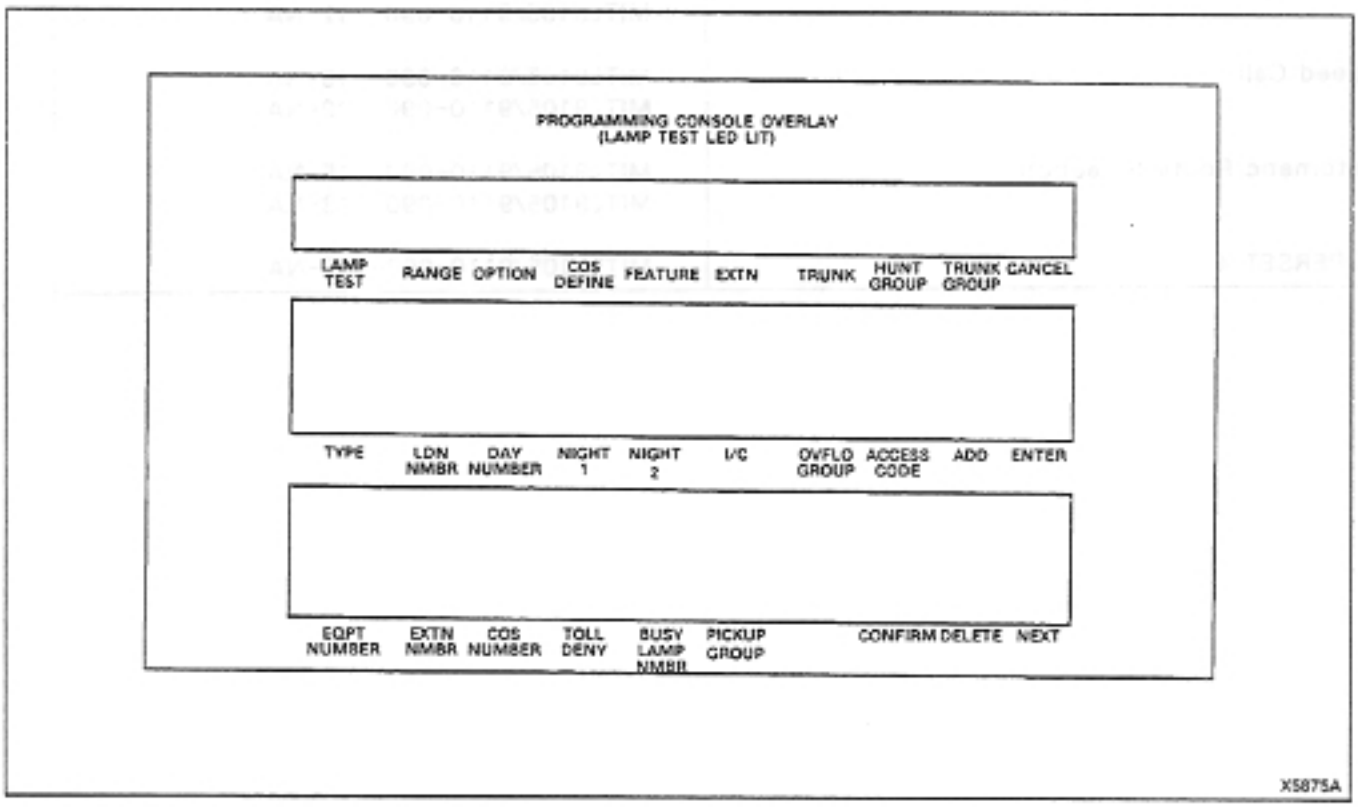


Figure A2-1 Standard Programming Overlay

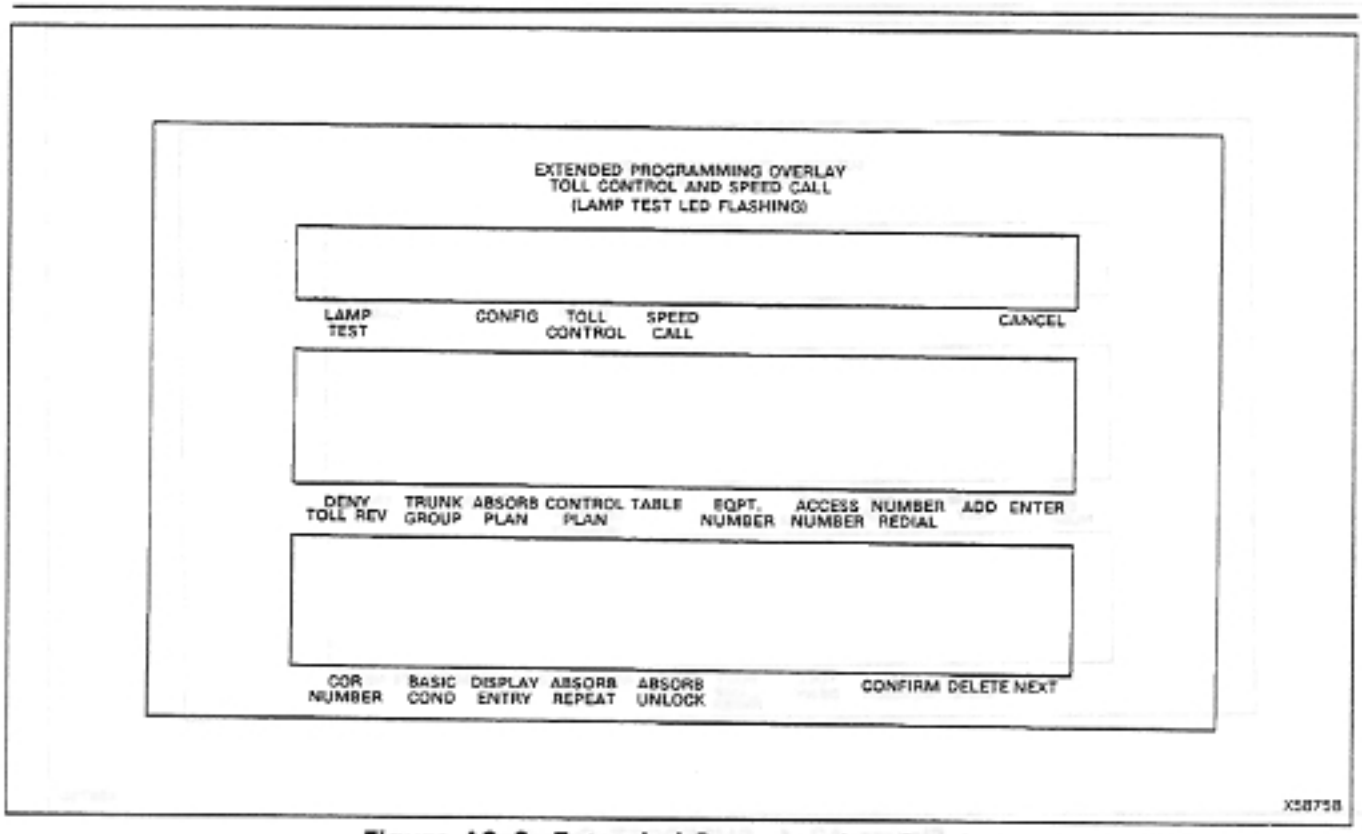


Figure A2-2 Extended Programming Overlay

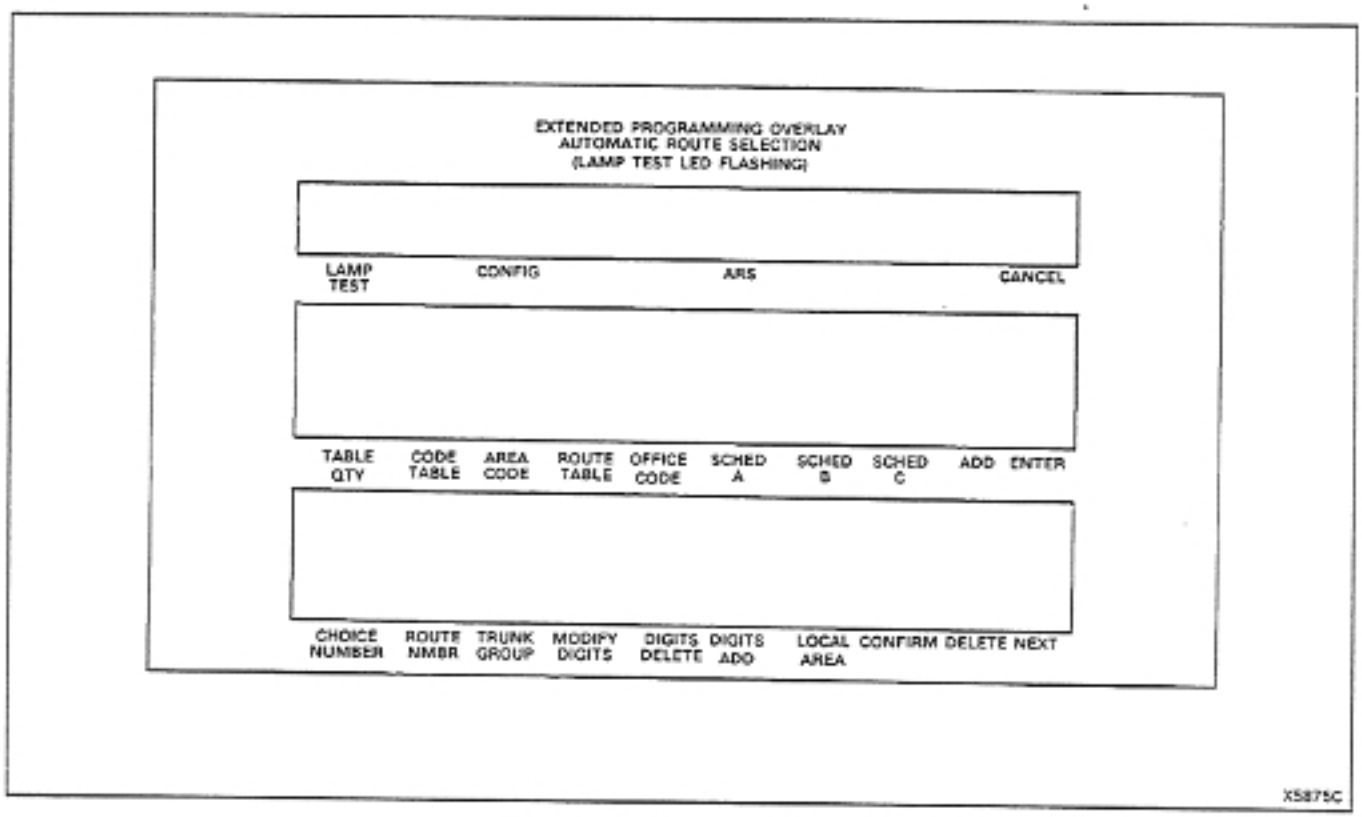


Figure A2-3 ARS Overlay

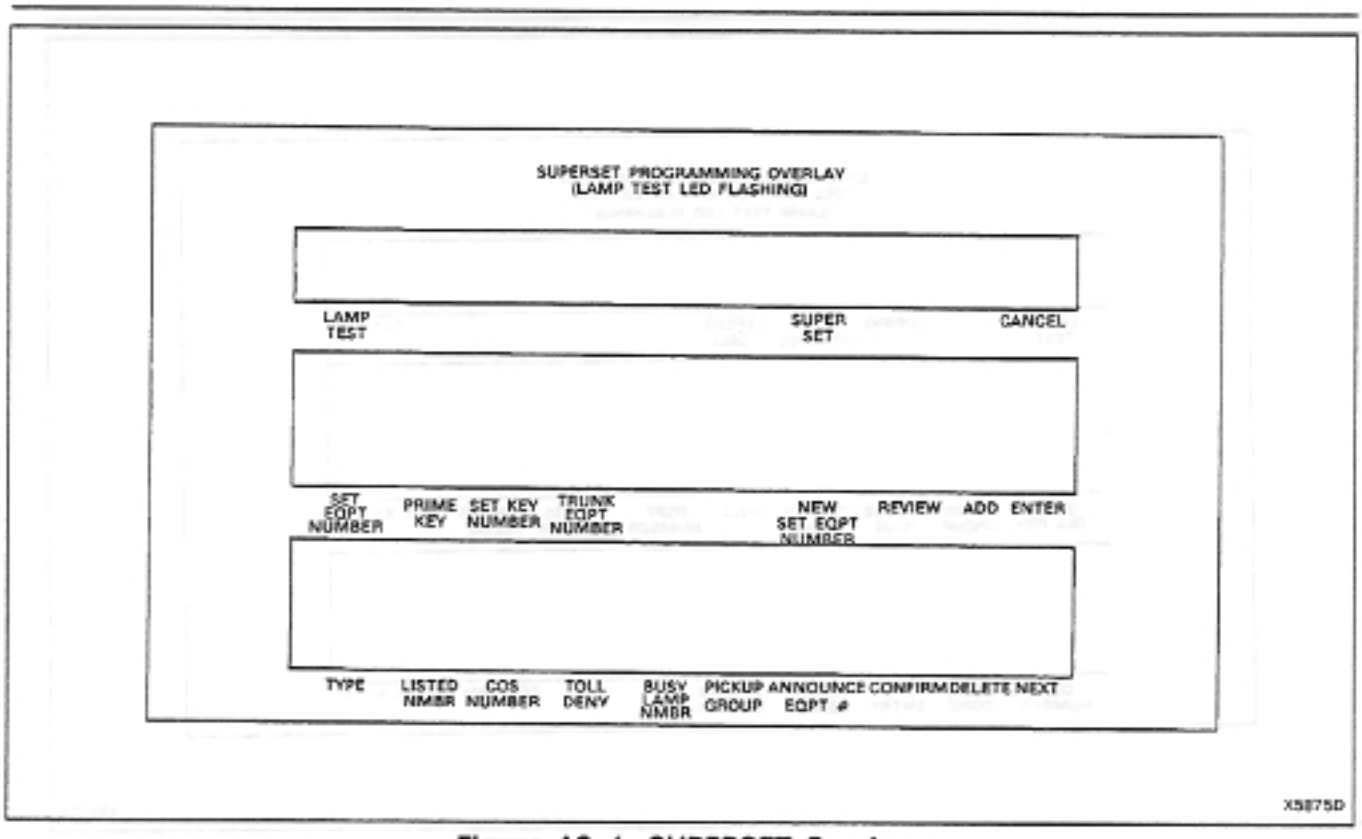
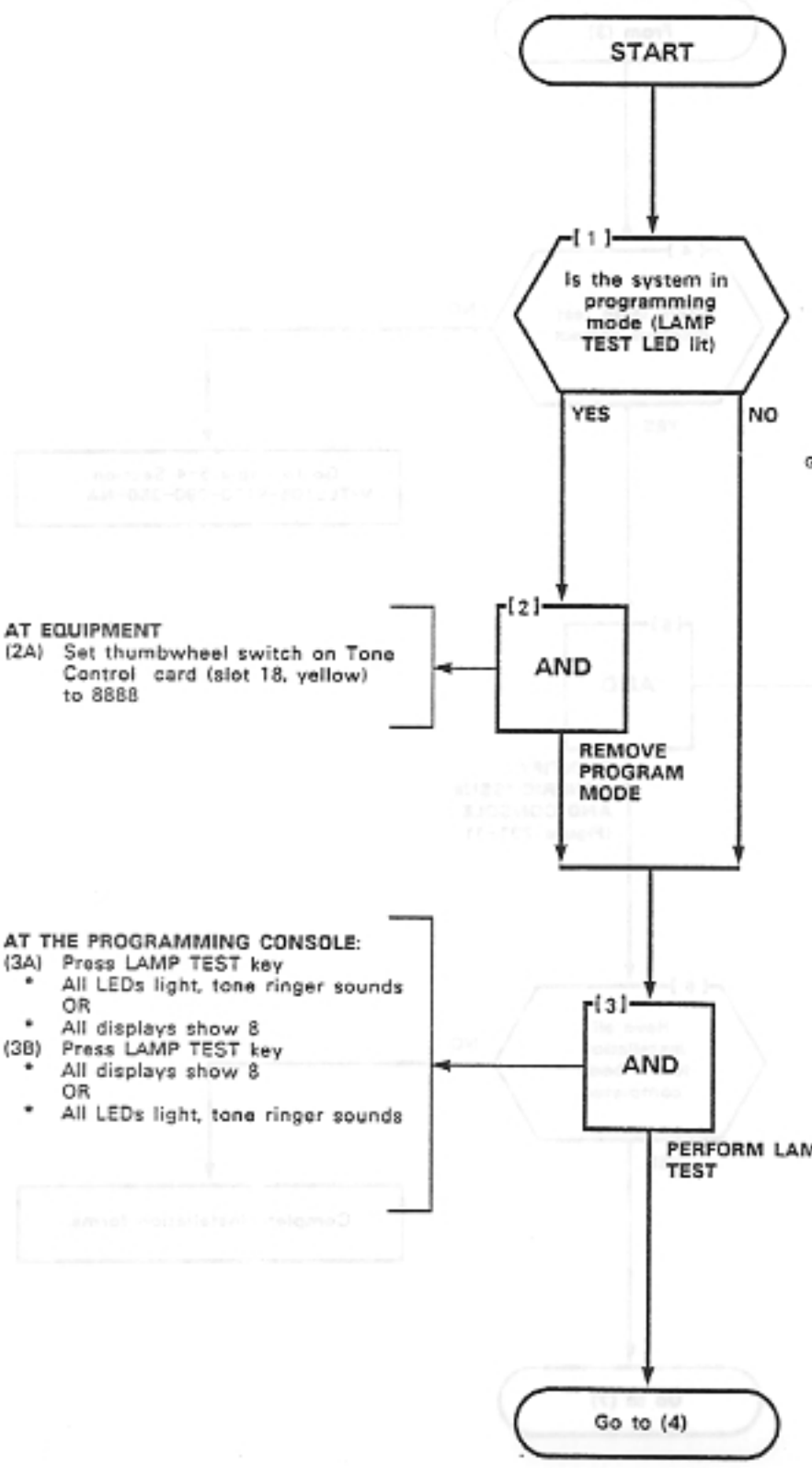
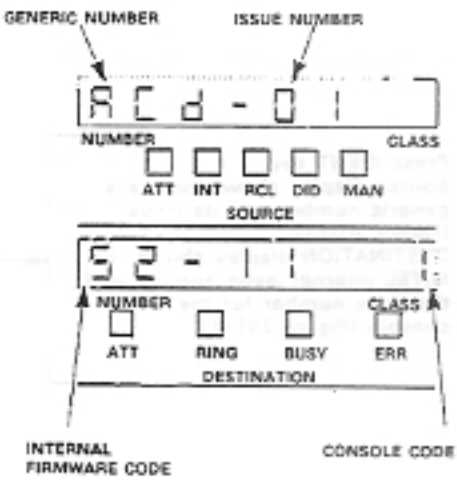


Figure A2-4 SUPERSET Overlay

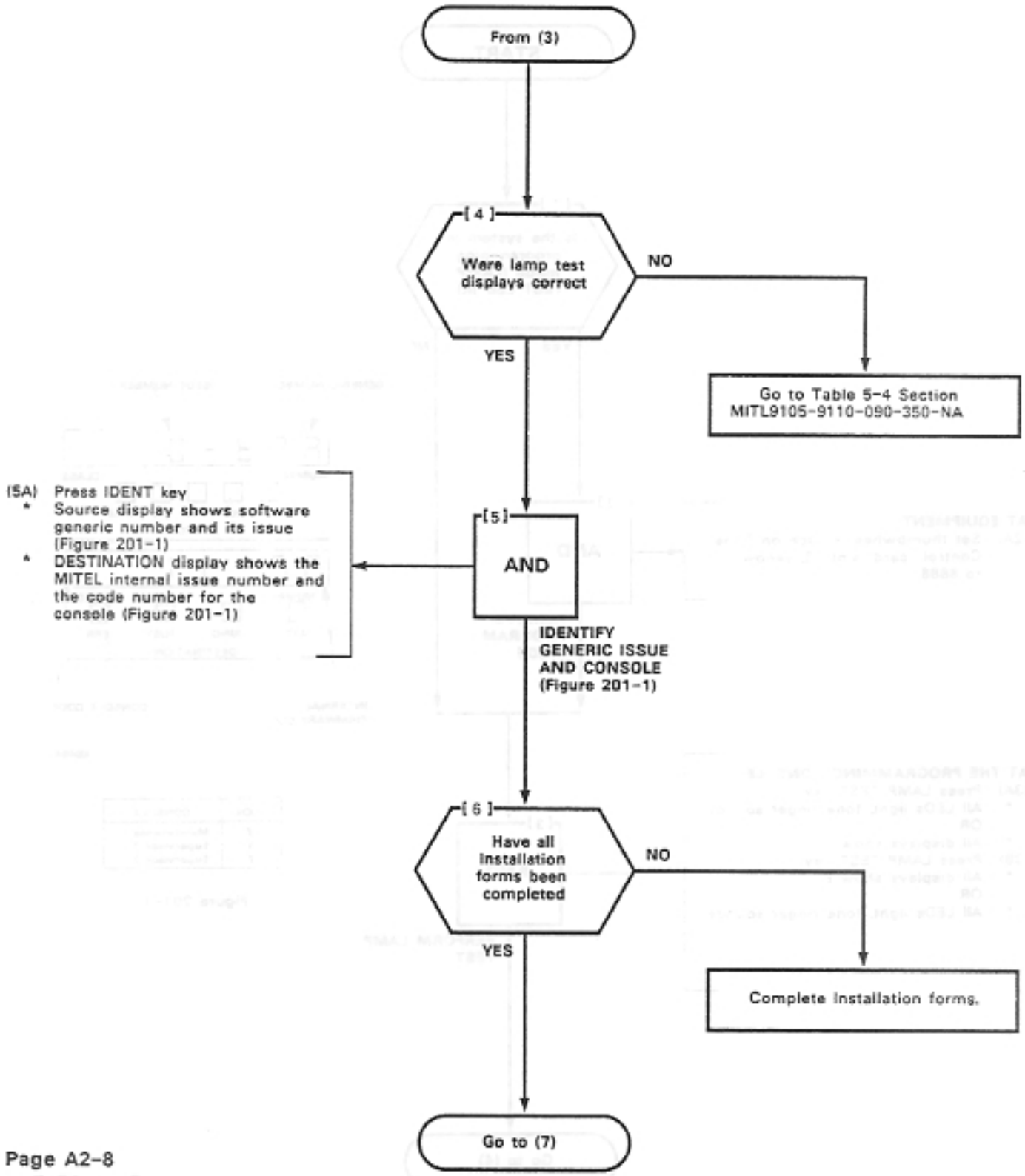
SYSTEM PROGRAMMING
MAP210-201
Issue 1, September 1983
Sheet 1 of 4





CODE	CONSOLE
0	Maintenance
1	Supervisor 1
2	Supervisor 2

Figure 201-1


From (3)
[4]
Were lamp test displays correct
NO
YES
Go to Table 5-4 Section MITL9105-9110-090-350-NA
[5]
AND
(5A) Press IDENT key
* Source display shows software generic number and its issue (Figure 201-1)
* DESTINATION display shows the MITEL internal issue number and the code number for the console (Figure 201-1)
IDENTIFY GENERIC ISSUE AND CONSOLE (Figure 201-1)
[6]
Have all installation forms been completed
NO
YES
Complete installation forms.
Go to (7)

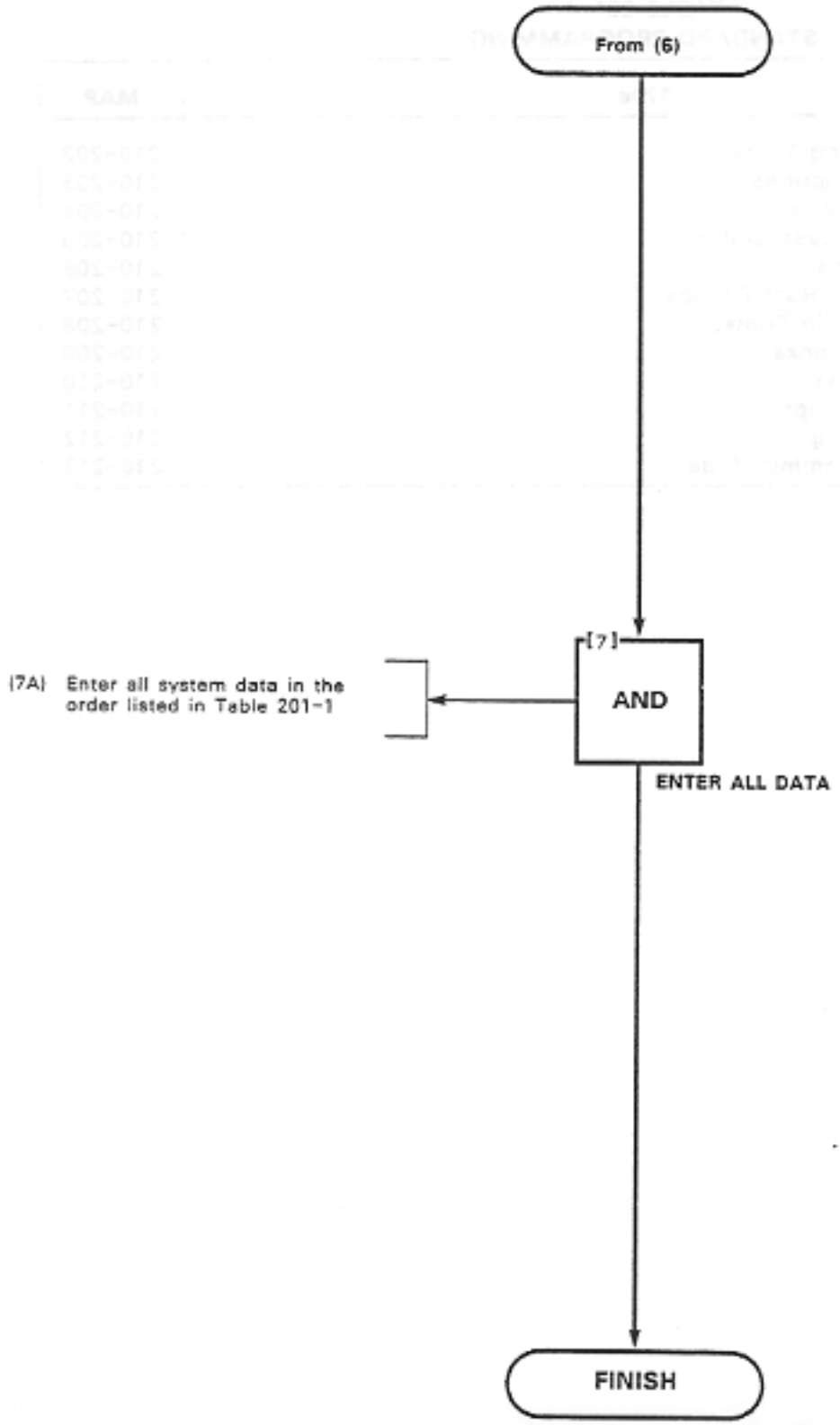

From (6)
[7]
AND
[7A] Enter all system data in the order listed in Table 201-1
ENTER ALL DATA
FINISH

TABLE 201-1
STANDARD PROGRAMMING

Step	Title	MAP
1	Select Programming Mode	210-202
2	Program System Options	210-203
3	Program COS Options	210-204
4	Assign Feature Access Codes	210-205
5	Program Extensions	210-206
6	Program Extension Hunt Groups	210-207
7	Program Non-Dial-In Trunks	210-208
8	Program Dial-In Trunks	210-209
9	Program DID Trunks	210-210
10	Program Trunk Groups	210-211
11	Range Programming	210-212
12	Terminate Programming Mode	210-213

SELECT PROGRAMMING MODE
MAP210-202
Issue 1, September 1983
Sheet 1 of 3

CAUTION

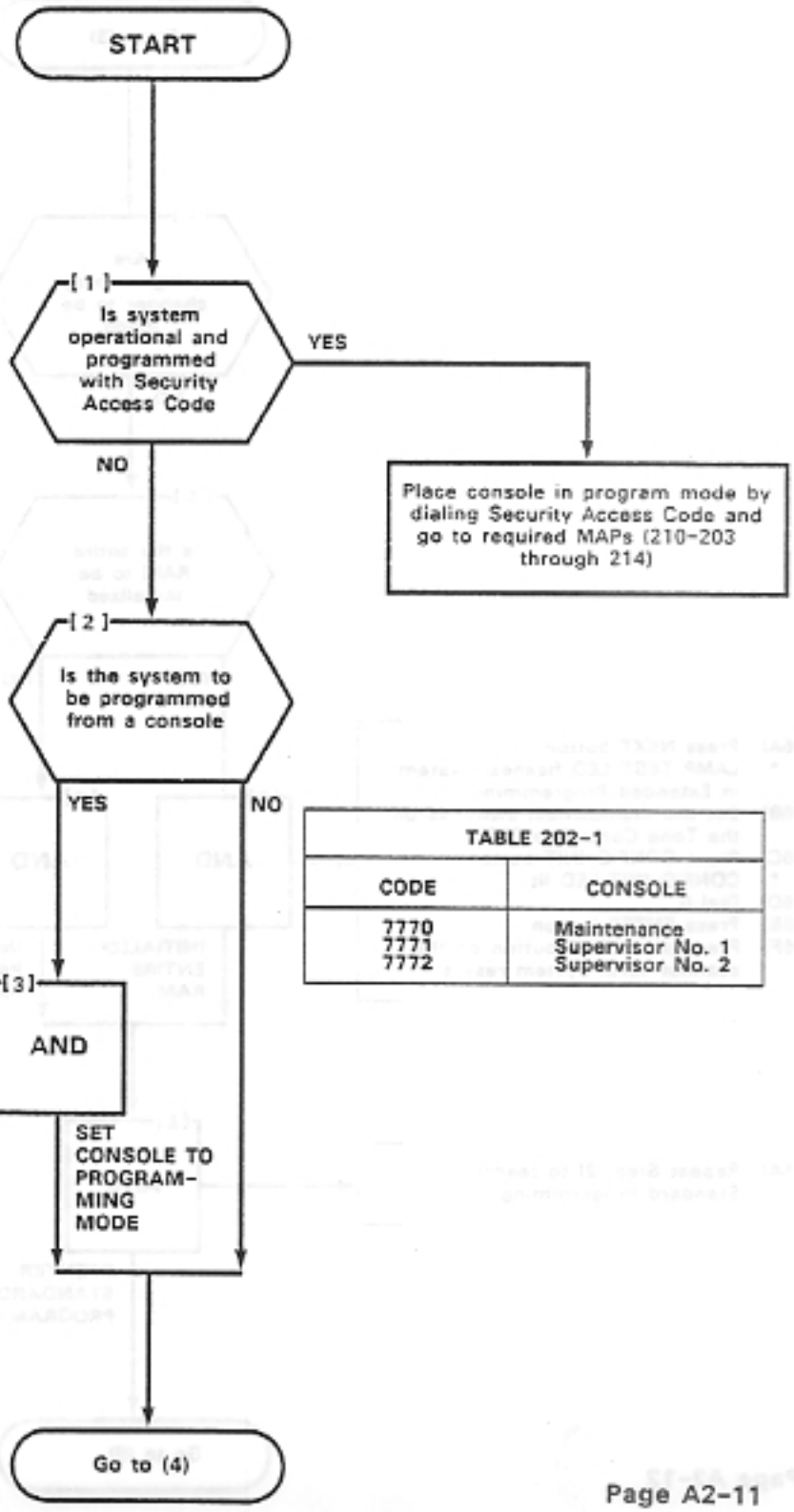
Equipment must be in nonprogram mode at start. See MAP210-201 Step (2).

NOTE

To use Programming Security Access Code the following criteria must apply: Feature 29 (MAP210-205) is programmed with the code

NOTE

When using the maintenance console, plug it in to the maintenance connector on the cabinet maintenance panel.



PLACE CONSOLE IN PROGRAMMING MODE

(3A) Place programming console overlay over console faceplate

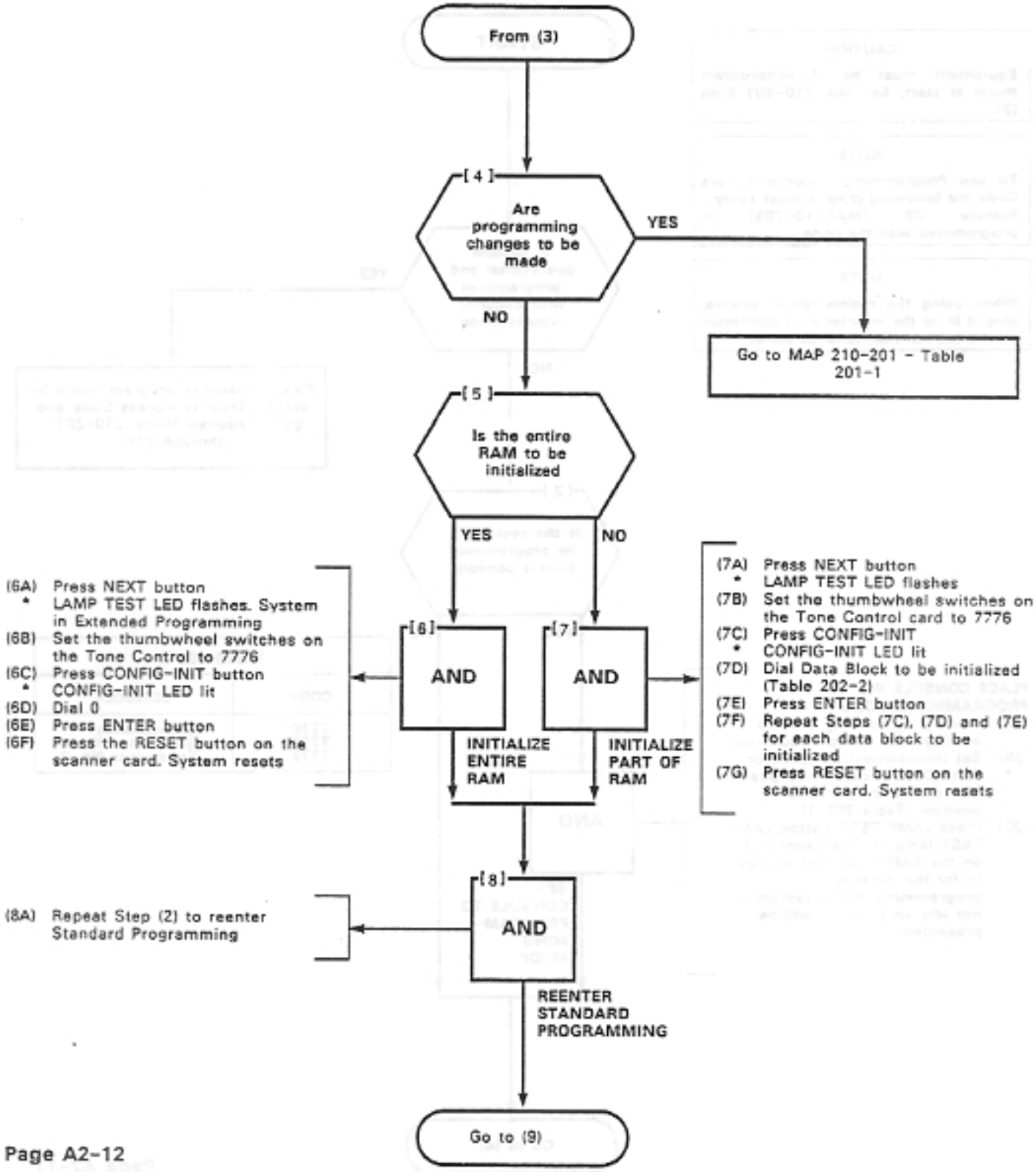
(3B) * Set thumbwheel switches on Tone Control card (card position 18, yellow) to appropriate position (Table 202-1)

(3C) Press LAMP TEST button LAMP TEST lamp lit. The second LED on the RAM-COS card will be lit for the duration of programming. If the system is not idle an E7 error will be presented

TABLE 202-1

CODE	CONSOLE
7770	Maintenance
7771	Supervisor No. 1
7772	Supervisor No. 2

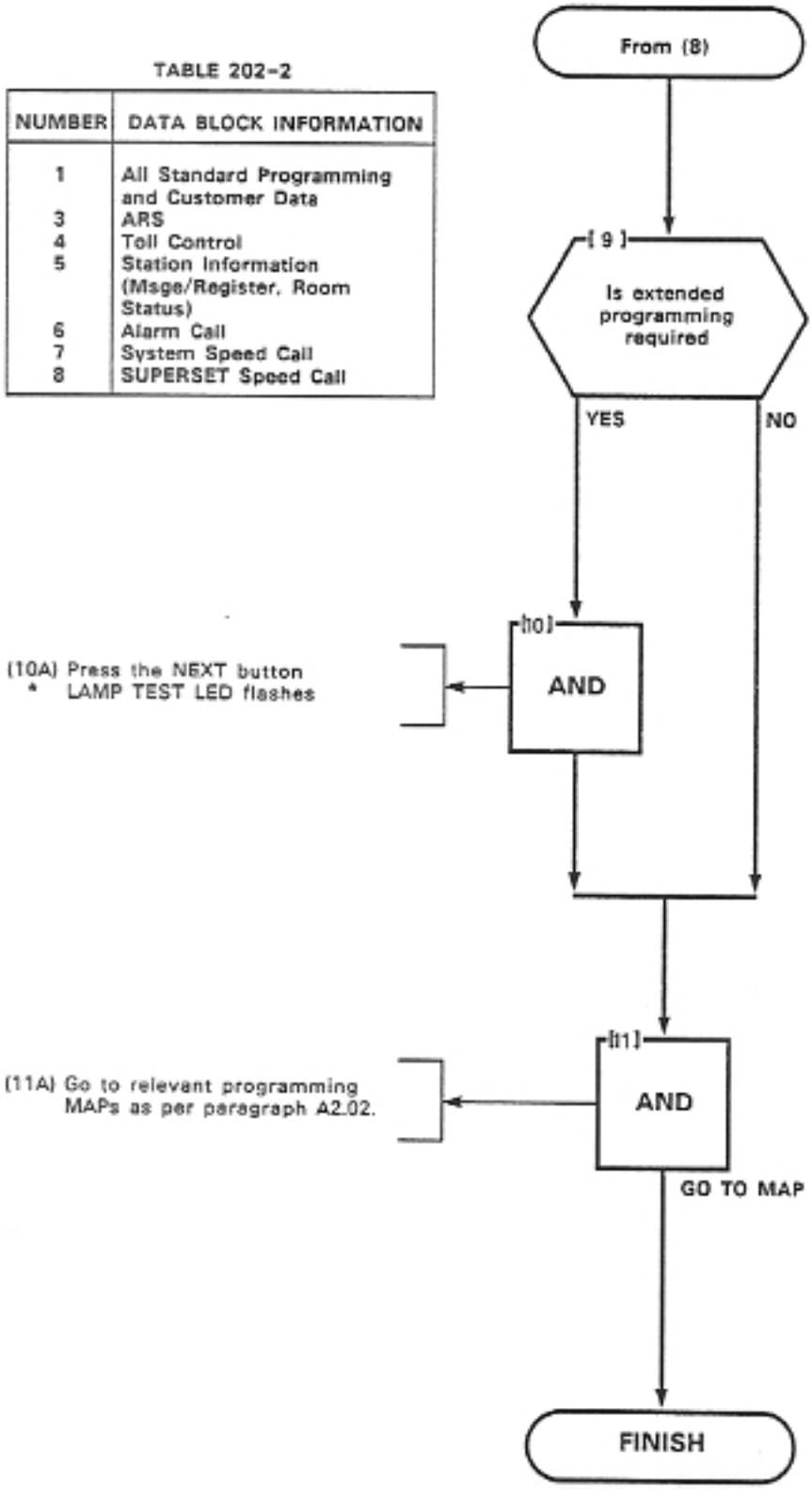
SELECT PROGRAMMING MODE
MAP210- 202
Issue 1, September 1983
Sheet 2 of 3



SELECT PROGRAMMING MODE
MAP210-202
Issue 1, September 1983
Sheet 3 of 3

TABLE 202-2

NUMBER	DATA BLOCK INFORMATION
1	All Standard Programming and Customer Data
3	ARS
4	Toll Control
5	Station Information (Msge/Register, Room Status)
6	Alarm Call
7	System Speed Call
8	SUPERSET Speed Call



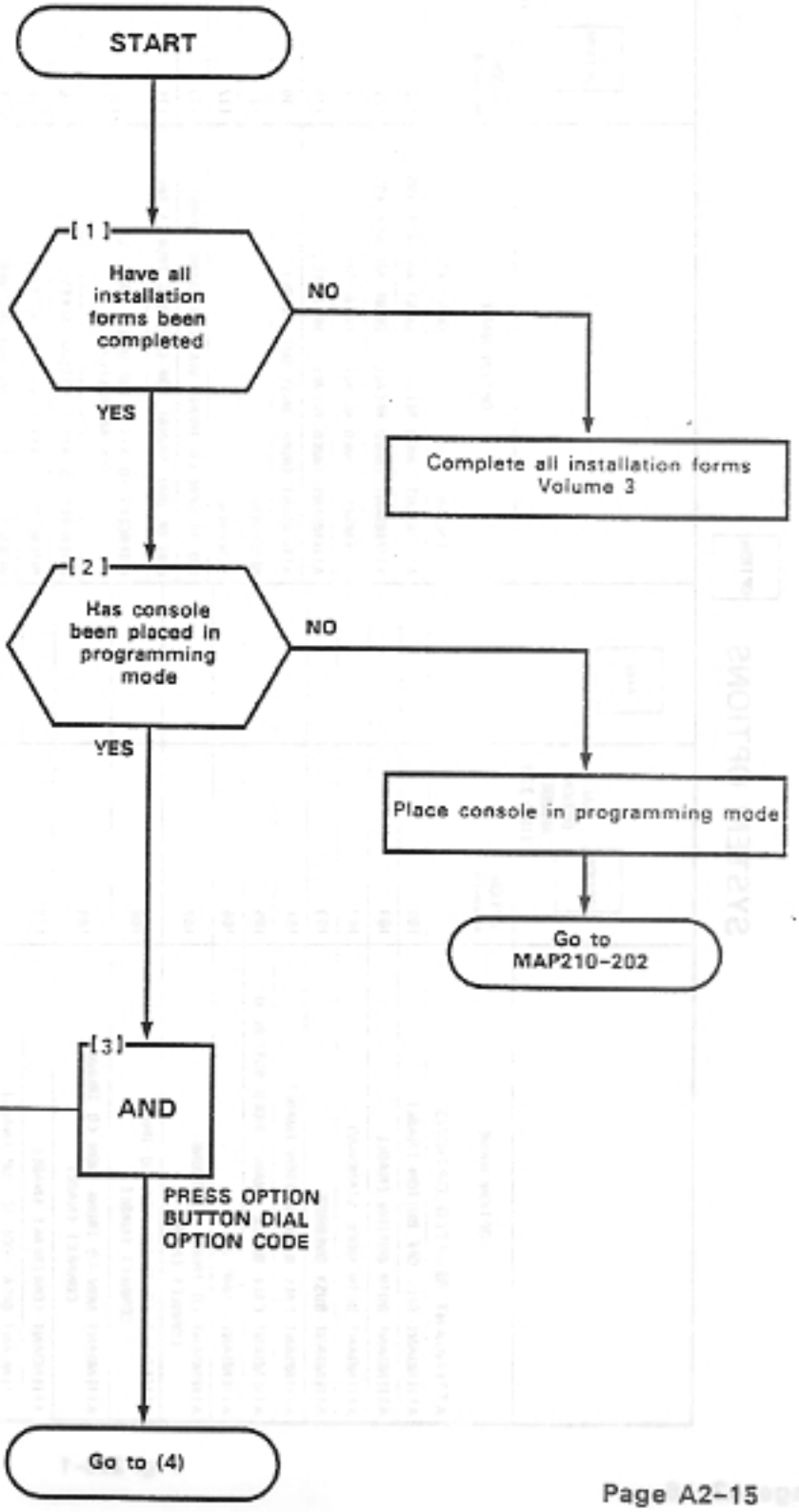
PROGRAM SYSTEM OPTIONS
MAP210-203
Issue 1. September 1983
Sheet 1 of 8

NOTES

(1) All entries are made from the console dial pad.
(2) OPTION lamp lit throughout procedure.
(3) A display of E0 indicates that an incorrect key had been pressed. Press the button specified.

SYNOPSIS

Select option mode.
Enter required system codes, (100-339)
Press ADD or DELETE buttons.
Press ENTER button.



SYSTEM OPTIONS

OPTION

MITEL

OPTION NAME	OPTION NUMBER	OPTION DIAL OPTION NUMBER (100-339)	ADD
ATTENDANT RELATED OPTIONS			
ATTENDANT BELL OFF BUTTON ENABLE	100	1	
ATTENDANT BOTH BUTTON ENABLE	101	1	
ATTENDANT BOTH MODE STANDARD	102	0	
ATTENDANT BUSY OVERRIDE	103	1	
ATTENDANT CALL BACK BUTTON ENABLE	104	0	
ATTENDANT CALL-BLOCK ENABLE (HOLD BUTTON 4)	105	0	
ATTENDANT CAMP ON	106	1	
ATTENDANT CO TRUNK-CO TRUNK CONNECT ENABLE	107	1	
ATTENDANT CO TRUNK-NON CO TRUNK CONNECT ENABLE	108	1	
ATTENDANT NON CO TRUNK-NON CO TRUNK CONNECT ENABLE	109	1	
ATTENDANT CONFERENCE ENABLE	110	1	
ATTENDANT DISA CODE SET-UP ENABLE	111	0	
ATTENDANT DO NOT DISTURB AND MESSAGE WAITING DISPLAY	112	1	
ATTENDANT GUEST ROOM BUTTON ENABLE	113	0	
RESERVED	114	0	
ATTENDANT LOCK OUT ALARM ENABLE	115	0	
ATTENDANT NEW CALL TONE ENABLE	116	1	
ATTENDANT PAGE BUTTON ENABLE	117	1	
ATTENDANT PRINTER CONTROL ENABLE	118	1	
ATTENDANT ROOM STATUS BUTTON ENABLE & DISPLAY ENABLE	119	0	
ATTENDANT SERIAL CALL	120	1	
ATTENDANT SERIAL CALL OVERRIDE FLASH BUTTON ENABLE	121	0	
ATTENDANT STATION BUSY OUT ENABLE	122	0	
ATTENDANT TIMED RECALL - CAMP ON 20S	123	0	
ATTENDANT TIMED RECALL - CAMP ON 40S	124	0	

OPTION NAME	OPTION NUMBER	OPTION DIAL OPTION NUMBER (100-339)	ADD
ATTENDANT TIMED RECALL - CONT ANSWER 10S	125	0	
ATTENDANT TIMED RECALL - CONT ANSWER 20S	126	0	
ATTENDANT TIMED RECALL - CONT ANSWER 40S	127	0	
ATTENDANT TIMED RECALL - HOLD 20S	128	0	
ATTENDANT TIMED RECALL - HOLD 40S	129	1	
ATTENDANT TRUNK BUSY OUT ENABLE	130	1	
RESERVED	131	0	
RESERVED	132	0	
DID TO NON-CO TRUNK VIA ATTENDANT INHIBIT	133	0	
END OF DIAL SIGNAL FOR OUTGOING TRUNKS (M)	134	1	
INTERCEPT TO ATT - DID DIAL - IN CCSA VACANT/ILLEGAL	135	0	
INTERCEPT TO ATT - ILLEGAL ACCESS	136	0	
INTERCEPT TO ATT - VACANT NUMBER	137	0	
INTERCEPT TO ATT - DO NOT DISTURB	138		
RESERVED	139		
RESERVED	140		
RESERVED	141		
RESERVED	142		
RESERVED	143		
RESERVED	144		
RESERVED	145		
RESERVED	146		
RESERVED	147		
RESERVED	148		
RESERVED	149		
SYSTEM RELATED OPTIONS			
24 HOUR CLOCK	150	0	
DATA DEMULTIPLEX ENABLE	151	0	
RESERVED	152	—	

Fig. 203-1

SYSTEM OPTIONS

OPTION

MITEL

OPTION NAME	OPTION NUMBER	OPTION DIAL OPTION NUMBER (100-333)	ADD
DIGIT TRANSLATION PLAN 1	153	0	
DIGIT TRANSLATION PLAN 2	154	0	
DIGIT TRANSLATION PLAN 3	155	0	
FLEXIBLE NIGHT SERVICE	156	1	
IDENTIFIED TRUNK GROUP ENABLE	157	0	
INCOMING TO OUTGOING CALL FORWARD ENABLE	158	1	
INHIBIT AUTOMATIC SUPERVISION	159	1	
LIMITED WAIT FOR DIAL TONE 8S	160	1	
MUSIC ON HOLD DISABLE	161	0	
NIGHT BELL 3 WITH MINOR ALARM ENABLE	162	0	
NIGHT SERVICE AUTOMATIC SWITCHING	163	0	
NIGHT SERVICE TIMEOUT - 20S	164	0	
NIGHT SERVICE TIMEOUT - 40S	165	0	
REMOTE SYSTEM RESET - PROTECTION OVERRIDE	166	0	
RINGING TIMEOUT 1 MINUTE	167	0	
SYSTEM ID ENABLE	168	0	
TRUNK RE-CALL PARTIAL INHIBIT	169	0	
RESERVED	170	0	
STORE AND FORWARD	171	0	
15 SEC EXTERNAL INTERDIGIT TIMEOUT	172	0	
TRUNK ALARM ENABLE: NO SEIZE ACKNOWLEDGE	173	0	
TRUNK ALARM ENABLE: NO RELEASE ACKNOWLEDGE	174	0	
RESERVED	175	0	
RESERVED	176	1	
RESERVED	177	1	
RESERVED	178	1	
RESERVED	179	1	
STATION RELATED OPTIONS			
CAN FLASH IF TALKING TO A STATION	180	1	
CAN FLASH IF TALKING TO A INCOMING TRUNK	181	1	
CAN FLASH IF TALKING TO A OUTGOING TRUNK	182	1	

OPTION NAME	OPTION NUMBER	OPTION DIAL OPTION NUMBER (100-333)	ADD
CANNOT DIAL TRUNK AFTER FLASH	183	0	
CANNOT DIAL TRUNK AFTER FLASH IF HOLDING OR IN CONFERENCE WITH TRUNK	184	0	
DISCRIMINATING DIAL TONE	185	1	
DISCRIMINATING RINGING	186	0	
DO NOT DISTURB ENABLE	187	1	
EXTENSION NON - CO TRUNK TO TRUNK CONNECT ENABLE	188	1	
FLASH TIMING = .7 SECONDS	189	0	
FLASH TIMING = 9 SECONDS	190	0	
FLASH TIMING = 1.1 SECONDS	191	1	
MESSAGE REGISTRATION ENABLE	192	0	
MESSAGE REGISTRATION COUNT ADDITIONAL SUPERVISIONS	193	0	
MESSAGE REGISTRATION TIMER = 20 SECONDS	194	0	
MESSAGE REGISTRATION TIMER = 40 SECONDS	195	0	
MESSAGE REGISTRATION MULTIPLIER = 2 UNITS	196	0	
MESSAGE REGISTRATION MULTIPLIER = 3 UNITS	197	0	
MESSAGE REGISTRATION MULTIPLIER = 4 UNITS	198	0	
MESSAGE REGISTRATION SURCHARGE = 1 UNITS	199	0	
MESSAGE REGISTRATION SURCHARGE = 2 UNITS	200	0	
MESSAGE REGISTRATION SURCHARGE = 3 UNITS	201	0	
MESSAGE REGISTRATION SURCHARGE = 4 UNITS	202	0	
MESSAGE REGISTRATION SURCHARGE = 5 UNITS	203	0	
MESSAGE REGISTRATION SURCHARGE = 6 UNITS	204	0	
MESSAGE REGISTRATION SURCHARGE = 7 UNITS	205	0	
MESSAGE REGISTRATION SURCHARGE = 8 UNITS	206	0	
DISCRIMINATING RINGING - ALL CALLS	207	1	
OUTGOING TRUNK CALL - BACK	208	1	
OUTGOING TRUNK CAMP ON	209	1	
PARK AND CALL - HOLD RECALL - 2 MINUTES	210	0	
PARK AND CALL - HOLD RECALL - 4 MINUTES	211	1	

SYSTEM OPTIONS

OPTION

MITEL

OPTION NAME	OPTION NUMBER	OPTION DIAL OPTION NUMBER (100-339)	ADD
RANGE PROGRAMMING ENABLE	212	1	
SINGLE DIGIT DIALING ENABLE	213	1	
SINGLE DIGIT DIALING TIME OUT = 3 S	214	1	
SINGLE DIGIT DIALING TIME OUT = 5 S	215	0	
RESERVED	216	0	
REPEATED CAMP ON BEEP - 5 SECONDS	217	0	
REPEATED CAMP ON BEEP - 15 SECONDS	218	0	
DAFAS AVAILABLE DURING DAY	219	0	
TRANSFER DIAL TONE	220	1	
RESERVED	221	0	
RESERVED	222	0	
RESERVED	223	0	
RESERVED	224	0	
RESERVED	225	0	
RESERVED	226	0	
RESERVED	227	0	
RESERVED	228	0	
RESERVED	229	0	
FEATURE RELATED OPTIONS			
ACCOUNT CODE ENABLE	230	1	
VERIFIABLE ACCOUNT CODES	231	0	
ACCOUNT CODE LENGTH 4 DIGITS	232	0	
RESERVED	233	0	
ACCOUNT CODE LENGTH 8 DIGITS	234	0	
ACCOUNT CODE LENGTH 12 DIGITS	235	0	
VARIABLE LENGTH ACCOUNT CODES	236	0	
RESERVED	237	0	
ARS ENABLE	238	1	
ARS RETURN DIAL TONE	239	1	
ARS DIAL 0 TIMEOUT 5 SECONDS	240	1	

OPTION NAME	OPTION NUMBER	OPTION DIAL OPTION NUMBER (100-339)	ADD
ARS DIAL 0 TIMEOUT 10 SEC	241	0	
ARS UNRESTRICTED OFFICE CODE ENABLE	242	1	
RESERVED	243	0	
RESERVED	244	0	
AUTOMATIC WAKE - UP ENABLE	245	0	
AUTOMATIC WAKE - UP ALARM TO SUPERVISOR ENABLE	246	0	
AUTOMATIC WAKE - UP MUSIC ON HOLD	247	0	
AUTOMATIC WAKE - UP PRINT	248	0	
RESERVED	249	0	
RESERVED	250	0	
ACD ENABLE	251	0	
RESERVED	252	0	
CALL FORWARDING - BUSY (SYSTEM DIAL IN TIE TRUNK, CCSA)	253	0	
CALL FORWARDING - DON'T ANSWER SYS. DID. DIAL - IN TIE TK, CCSA	254	0	
CALL FORWARDING - DON'T ANSWER TIMEOUT - 10 SECONDS	255	0	
CALL FORWARDING - DON'T ANSWER TIMEOUT - 20 SECONDS	256	0	
CALL FORWARDING - DON'T ANSWER TIMEOUT - 40 SECONDS	257	1	
CONTROLLED OUTGOING RESTRICTION SET - UP	258	1	
CUSTOMER DATA PRINT OUT ENABLE	259	1	
CUSTOMER PROGRAMMING ENABLE	260	1	
CUSTOMER PROGRAMMING OF ARS ENABLE	261	1	
CUSTOMER PROGRAMMING OF COS DEFINITIONS ENABLE	262	1	
CUSTOMER PROGRAMMING OF EXTENSIONS ENABLE	263	1	
CUSTOMER PROGRAMMING OF FEATURES ENABLE	264	1	
CUSTOMER PROGRAMMING OF HUNT GROUPS ENABLE	265	1	

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SYSTEM OPTIONS

OPTION

MITEL

OPTION NAME	OPTION NUMBER	OPTION DIAL OPTION NUMBER (103-339)	ADD
CUSTOMER PROGRAMMING OF SPEED CALL ENABLE	266	1	
CUSTOMER PROGRAMMING OF SYSTEM OPTIONS ENABLE	267	1	
CUSTOMER PROGRAMMING OF TOLL CONTROL ENABLE	268	1	
CUSTOMER PROGRAMMING OF TRUNK GROUPS ENABLE	269	1	
CUSTOMER PROGRAMMING OF TRUNKS ENABLE	270	1	
CUSTOMER RANGE PROGRAMMING ENABLE	271	1	
CUSTOMER PROGRAMMING OF SUPERSET 4 ENABLE	272	1	
EXTERNAL CALL FORWARDING ENABLE	273	1	
HANDS FREE ENABLE	274	0	
MESSAGE WAITING SET - UP (BELL)	275	1	
MESSAGE WAITING SET - UP (LAMP)	276	0	
SMDR RECORD OUTGOING CALLS	277	1	
SMDR RECORD INCOMING CALLS	278	0	
SMDR RECORD ONLY INCOMING CO CALLS	279	0	
SMDR RECORD METER PULSES	280	0	
SMDR DROP INCOMPLETE OUTGOING CALLS	281	1	
SMDR DROP CALLS OF LESS THAN 8 DIGITS	282	0	
SMDR EXTENDED RECORD	283	0	
SMDR INDICATE LONG CALLS	284	1	
SMDR OVERWRITE ENABLE	285	1	
RESERVED	286	0	
SPEED CALL ENABLE	287	1	
SPEED CALL PROGRAMMING ENABLE	288	1	
SPEED CALL CONFIDENTIAL NUMBER DISPLAY ENABLE	289	0	
RESERVED	290	0	
TOLL CONTROL - FIRST DIGIT	291	0	
TOLL CONTROL - MULTI DIGIT	292	1	

OPTION NAME	OPTION NUMBER	ADD
RESERVED	293	0
RESERVED	294	0
TRAFFIC MEASUREMENT AUTOPRINT	295	0
TRAFFIC MEASUREMENT COMPACT REPORT	296	0
TRAFFIC MEASUREMENT CONSOLE FUNCTION ENABLE	297	0
TRAFFIC MEASUREMENT ENABLE	298	0
TRAFFIC MEASUREMENT EXTREME VALUE MODE	299	0
TRAFFIC MEASUREMENT POLLING	300	0
RESERVED	301	0
RESERVED	302	
RESERVED	303	
RESERVED	304	
RESERVED	305	
RESERVED	306	
RESERVED	307	
RESERVED	308	
RESERVED	309	1
PRINTER RELATED OPTIONS		
CONDENSED SMDR PRINT ENABLE (CENTRONICS 730 - 3 PRINTER)	310	0
KSMDR PRINT ENABLE	311	1
MESSAGE REGISTER & MESSAGE WAITING CHANGE PRINT ENABLE	312	0
PRINTER CARRIAGE RETURN DELAY	313	0
PRINTER TRANSMIT ADDITIONAL NULLS	314	1
PRINTOUTS EXTRA LINE FEEDS (MITEL/NORTEL ONLY)	315	0
ROOM MESSAGE REGISTER AUDIT ENABLE	316	0
ROOM STATUS AUDIT ENABLE	317	0

SYSTEM OPTIONS

OPTION

OPTION NAME	OPTION NUMBER	DIAL OPTION NUMBER (100 - 339) OPTION	ADD
ZERO MESSAGE REGISTER AFTER ROOM REGISTER AUDIT	318		
RESERVED	319		
RESERVED	320		
RESERVED	321		
RESERVED	322		
RESERVED	323		
RESERVED	324		
RESERVED	325		
RESERVED	326		
RESERVED	327		
RESERVED	328		
RESERVED	329		

OPTION NAME	OPTION NUMBER	DIAL OPTION NUMBER (100 - 339) OPTION	ADD
SUPERSET RELATED OPTIONS			
SUPERSET DISCONNECT ALARM	330		
SUPERSET IMMEDIATE LINE SELECTION ENABLE	331		
SUPERSET LAST NUMBER REDIAL ENABLE	332		
SUPERSET AUTO HOLD DISABLE	333		
RESERVED	334		
RESERVED	335		
RESERVED	336		
RESERVED	337		
RESERVED	338		
RESERVED	339		

AFTER ALL OPTIONS ARE ADDED PRESS ENTER

NOTES

TO DELETE SYSTEM OPTIONS

OPTION — DIAL OPTION NUMBERS — DELETE

AFTER ALL REQUIRED OPTIONS HAVE BEEN REMOVED

ENTER

TO REVIEW SYSTEM OPTIONS

OPTION — NEXT — NEXT

MITEL

PROGRAM SYSTEM OPTIONS
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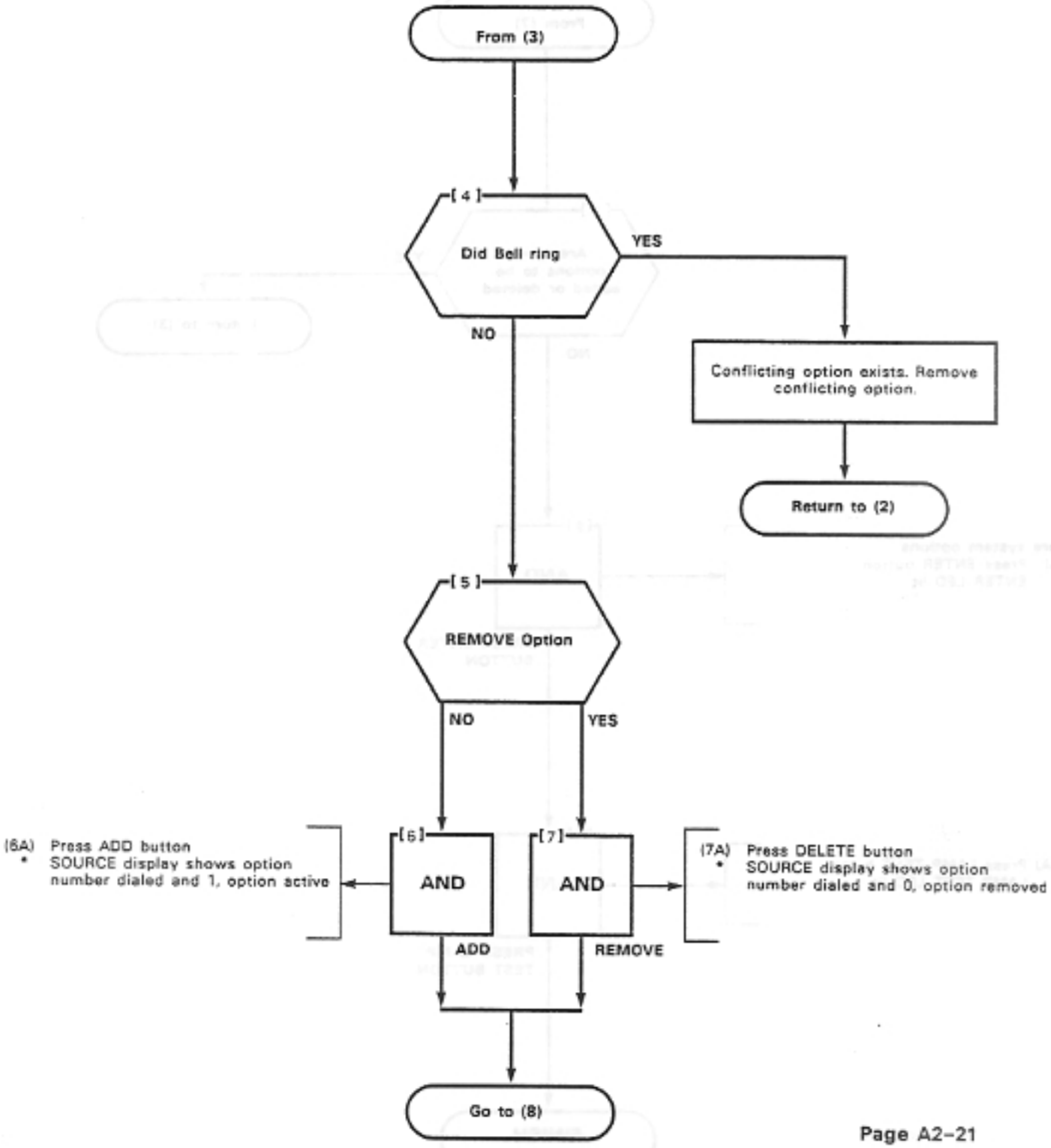

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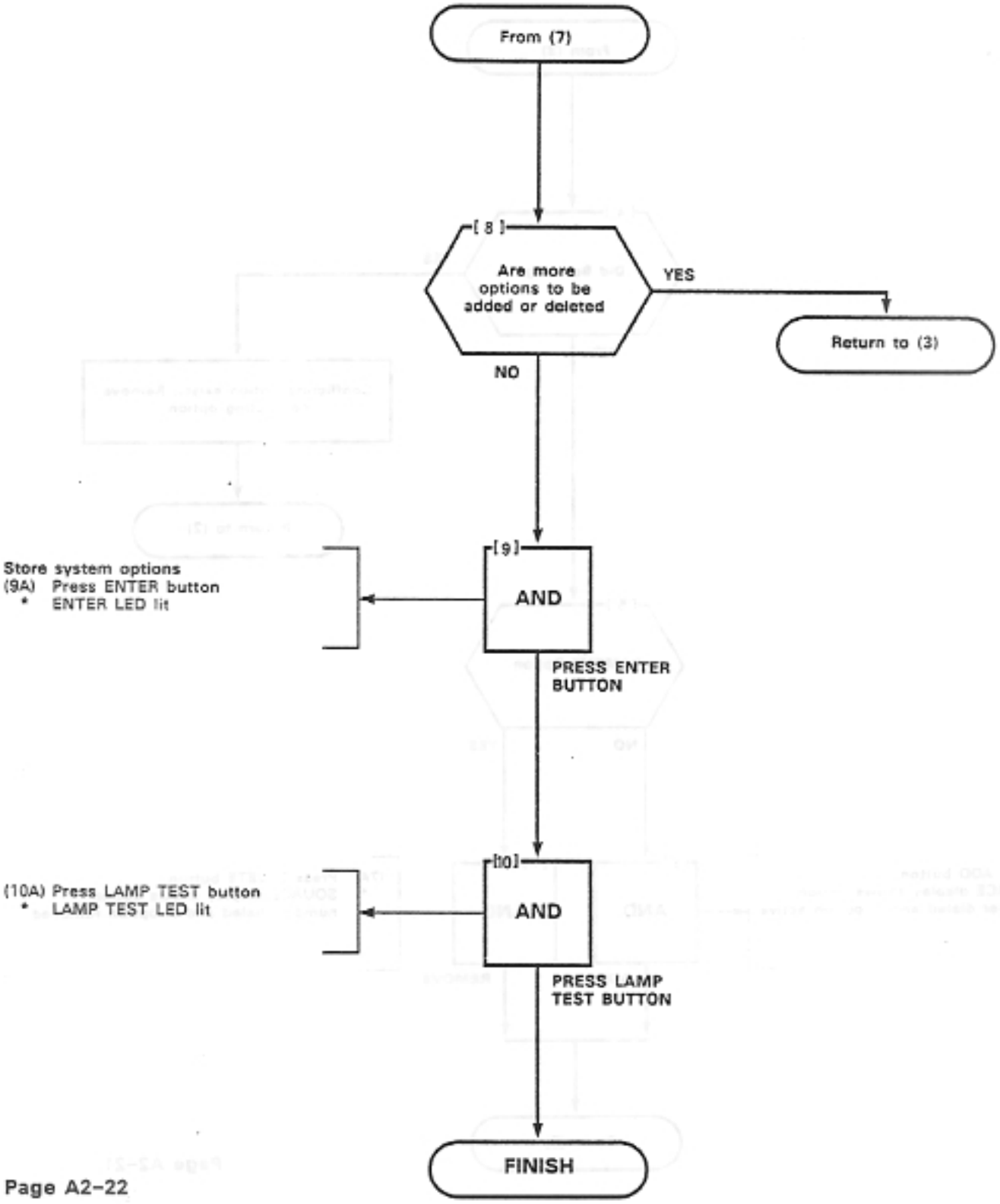

PROGRAM COS OPTIONS
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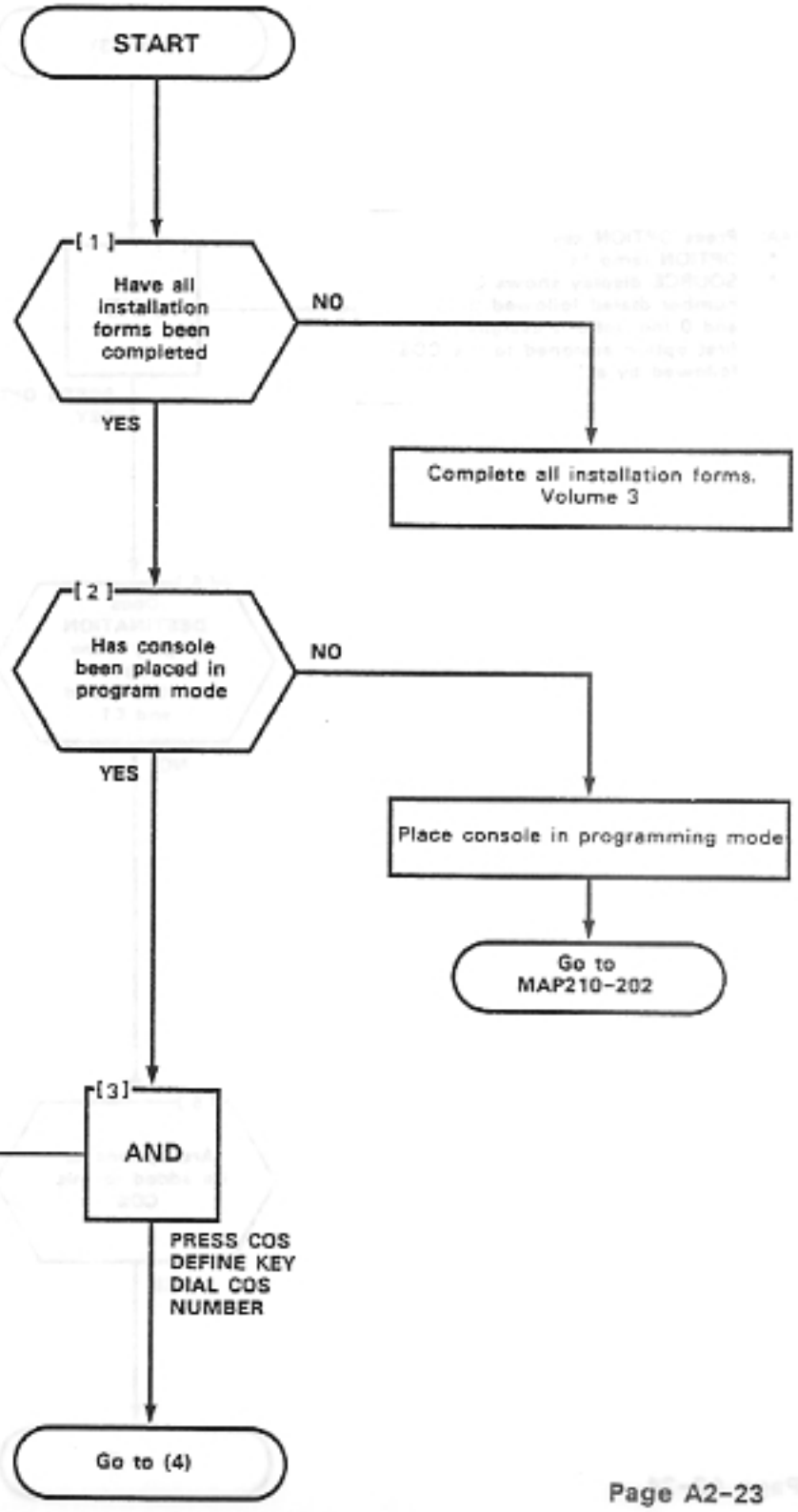
NOTES

(1) All entries are made from the console dial pad
(2) COS DEFINE lamp remains lit through procedure
(3) A display of EO indicates that an incorrect key was pressed; press key specified

SYNOPSIS

Define COS group (1-16)
Enter all option codes (33-120)
Press ADD or DELETE keys
Press ENTER key



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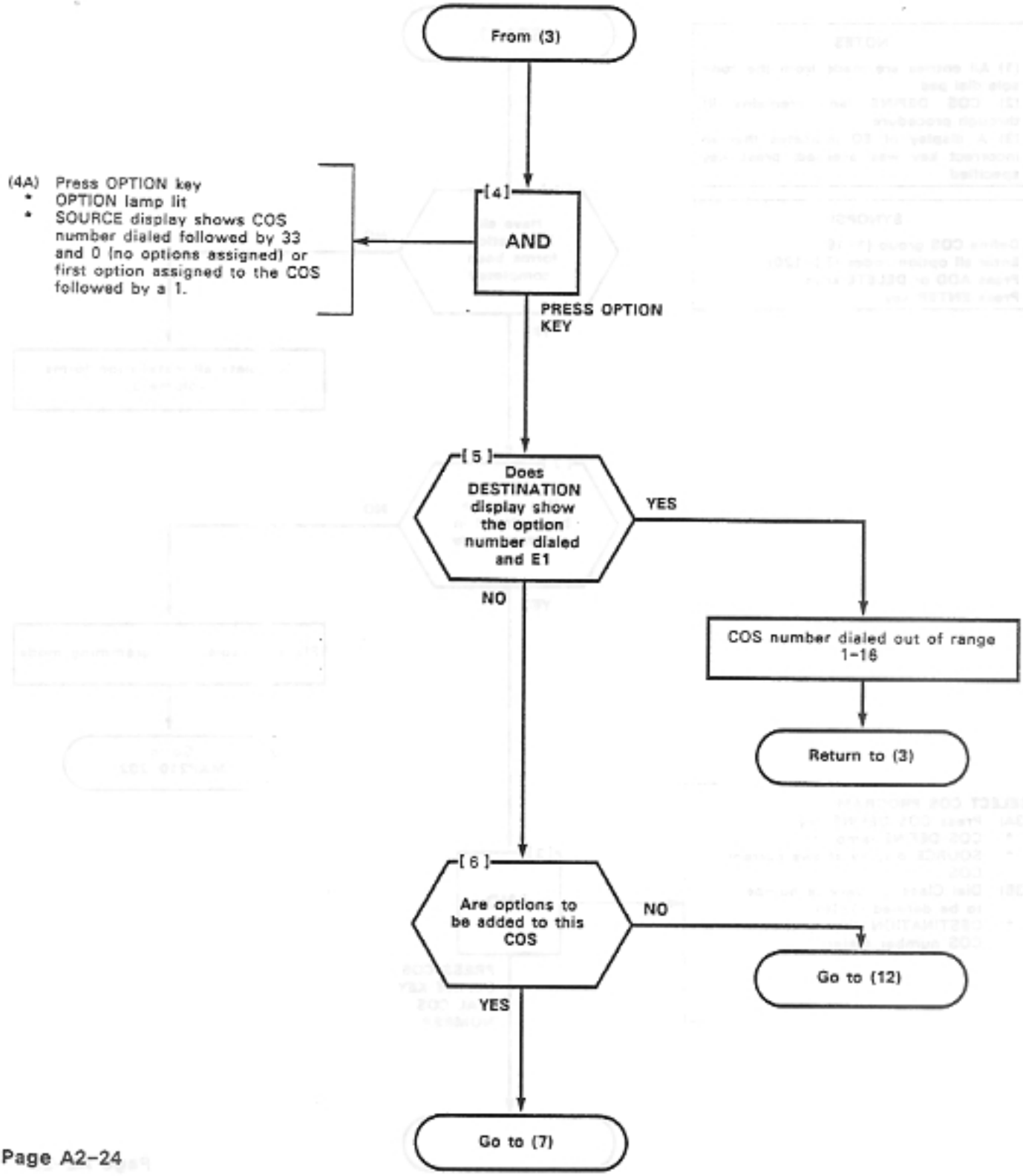

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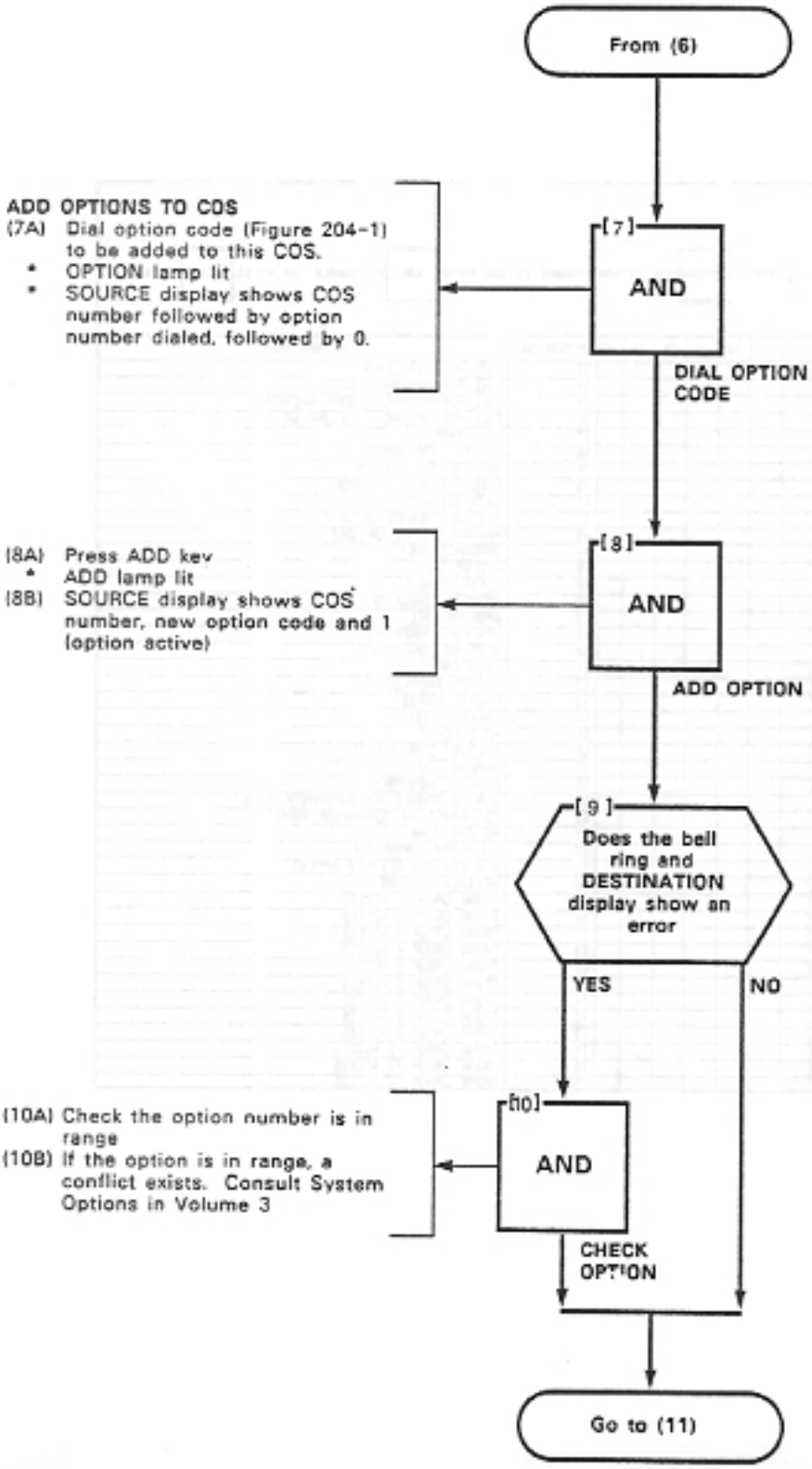

MITEL

PRESS [COS DEFINE] DIAL COS NUMBER 1-16 TO CHANGE ANY OPTION FOR A COS 1-16 PRESS [OPTION] DIAL OPTION NUMBER 33-120 PRESS [ADD] TO ENABLE OR PRESS [DELETE] TO REMOVE

OPTION NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	OPTION NO.	OPTION NAME
33																	33	AUTOMATIC CALLBACK
34																	34	CALL FORWARDING - BUSY
35																	35	CALL FORWARDING - DONT ANSWER
36																	36	CALL FORWARDING - FOLLOW ME
37																	37	CALL PARK
38																	38	NEVER A FORWARDEE
39																	39	DIRECTED CALL PICKUP
40																	40	EXECUTIVE BUSY OVERRIDE
41																	41	DATA SECURITY
42																	42	STATION OVERRIDE SECURITY
43																	43	INWARD RESTRICTION (CRD)
44																	44	ORIGINATE ONLY
45																	45	RECEIVE ONLY
46																	46	FLASH DISABLE
47																	47	NEVER A CONSULTEE
48																	48	BROKERS CALL
49																	49	STATION CONFERENCE
50																	50	MEET ME CONFERENCE
51																	51	CAMP-ON
52																	52	DO NOT OVERFLOW
53																	53	PAGING ACCESS
54																	54	TAFAS ACCESS
55																	55	HOLD PICKUP
56																	56	ACCOUNT CODE ACCESS
57																	57	MANUAL LINE
58																	58	CONTACT MONITOR
59																	59	NON-CO TRUNKS VIA SUPERVISOR INHIBIT
60																	60	CO TRUNKS VIA SUPERVISOR INHIBIT
61																	61	NO DIAL TONE
62																	62	FLASH FOR SUPERVISOR
63																	63	HUM STN-STN RESTRICT APPLIES
64																	64	MESSAGE REGISTER
65																	65	TRUNK GROUP 1 ACCESS
66																	66	TRUNK GROUP 2 ACCESS
67																	67	TRUNK GROUP 3 ACCESS
68																	68	TRUNK GROUP 4 ACCESS
69																	69	TRUNK GROUP 5 ACCESS
70																	70	TRUNK GROUP 6 ACCESS
71																	71	TRUNK GROUP 7 ACCESS
72																	72	TRUNK GROUP 8 ACCESS
73																	73	TRUNK GROUP 9 ACCESS
74																	74	TRUNK GROUP 10 ACCESS
75																	75	TRUNK GROUP 11 ACCESS
76																	76	TRUNK GROUP 12 ACCESS

CLASS OF SERVICE OPTIONS

PRESS [COS DEFINE] DIAL COS NUMBER 1-16 TO CHANGE ANY OPTION FOR A COS 1-16: PRESS [OPTION] DIAL OPTION NUMBER 33-120 PRESS [ADD] TO ENABLE OR PRESS [DELETE] TO REMOVE

REPEAT FOR EACH OPTION IN THE COS

OPTION NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	OPTION NO.	OPTION NAME
77																	77	MESSAGE WAITING APPLIES
78																	78	ROOM DO NOT DISTURB ENABLE
79																	79	CALL HOLD AND RETRIEVE ACCESS
80																	80	ROOM STATUS APPLIES
81																	81	CALL FORWARDING SYSTEM INHIBIT
82																	82	ALARM CALL ENABLE
83																	83	FORCED ACCOUNT CODE ENTRY
84																	84	NO SMDR RECORD APPLIES
85																	85	SPEED CALL TABLE 1&2 ACCESS
86																	86	SPEED CALL TABLE 3&4 ACCESS
87																	87	SPEED CALL TABLE 5&6 ACCESS
88																	88	SPEED CALL TABLE 7&8 ACCESS
89																	89	SPEED CALL TABLE 9&10 ACCESS
90																	90	SPEED CALL TABLE 11&12 ACCESS
91																	91	SPEED CALL TABLE 13&14 ACCESS
92																	92	SPEED CALL TABLE 15&16 ACCESS
93																	93	SPEED CALL TABLE 17&18 ACCESS
94																	94	CANNOT DIAL A TRUNK AFTER FLASHING
95																	95	INCOMING TRUNK ROTARY DIAL ONLY
96																	96	ARS RESTRICTED
97																	97	EXTERNAL CALL FORWARDING ENABLE
98																	98	TRANSFER WITH PRIVACY
99																	99	HANDS - FREE STATION
100																	100	ARS ALLOWED
101																	101	EARTH GROUND BUTTON
102																	102	CALL ANNOUNCE PORT
103																	101	EXTENSION RESET
104																	104	RESERVED
105																	105	RESERVED
106																	106	SUPERSET 4 SUB - ATTENDANT
107																	107	REPEATER CAMP - ON BEEPS

TO COPY COS

PRESS [COS DEFINE] DIAL 1-16 SOURCE [COS NUMBER] DIAL 1-16 DEST. [ENTER] PRESS [ENTER]

TO REVIEW THE OPTIONS WITHIN A COS [COS DEFINE] DIAL COS NUMBER [OPTION] [NEXT] [NEXT]

NOTES YOU CANNOT CHANGE AN EXTENSION OR TRUNK IF THE EXTENSION OR TRUNK IS BUSY, HAS MESSAGE WAITING OR DO NOT DISTURB SET. IT ALSO CANNOT BE CHANGED UNLESS MESSAGE REGISTER IS CLEARED.

MITEL

CLASS OF SERVICE OPTIONS

PRESS [COS DEFINE] DIAL COS NUMBER 1-16 TO CHANGE ANY OPTION FOR A COS 1-16: PRESS [OPTION] DIAL OPTION NUMBER 33-120 PRESS [ADD] TO ENABLE OR PRESS [DELETE] TO REMOVE

REPEAT FOR EACH OPTION IN THE COS

OPTION NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	OPTION NO.	OPTION NAME
108																	108	BACKGROUND MUSIC
109																	109	SUPERSET 4 SUB ATTENDANT MESSAGE PROGRAM
110																	110	SPECIAL DISA
111																	111	DIRECT TO ARS
112																	112	OFF PREMISE EXTENSION
113																	113	DISALLOW ARS SCHEDULE A
114																	114	DISALLOW ARS SCHEDULE B
115																	115	DISALLOW ARS SCHEDULE C
116																	116	ARS LIMITED ACCESS
117																	117	ACD AGENT
118																	118	ARS MOST EXPENSIVE ROUTE WARN
119																	119	LOW GAIN CONFERENCE ENABLE
120																	120	PRIVACY DISABLE

PRESS [ENTER] TO ENTER ALL INFORMATION IN THAT COS AFTER ALL OPTIONS IN THAT COS HAVE BEEN DEFINED

TO REVIEW THE OPTIONS WITHIN A COS [COS DEFINE] DIAL COS NUMBER [OPTION] [NEXT] [NEXT]

NOTES: YOU CANNOT CHANGE AN EXTENSION OR TRUNK IF THE EXTENSION OR TRUNK IS BUSY, HAS MESSAGE WAITING OR DO NOT DISTURB SET. IT ALSO CANNOT BE CHANGED UNLESS MESSAGE REGISTER IS CLEARED.

MITEL

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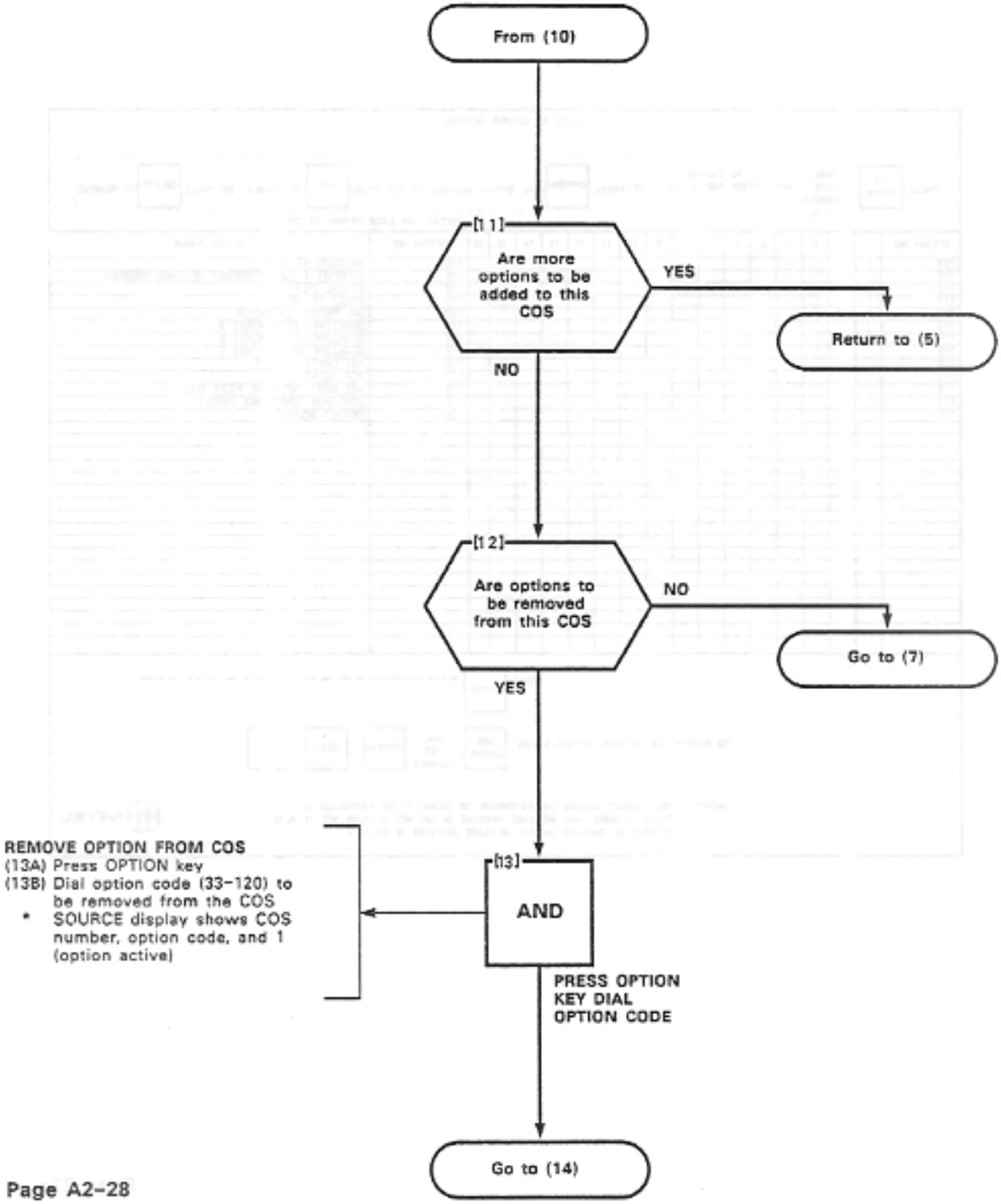

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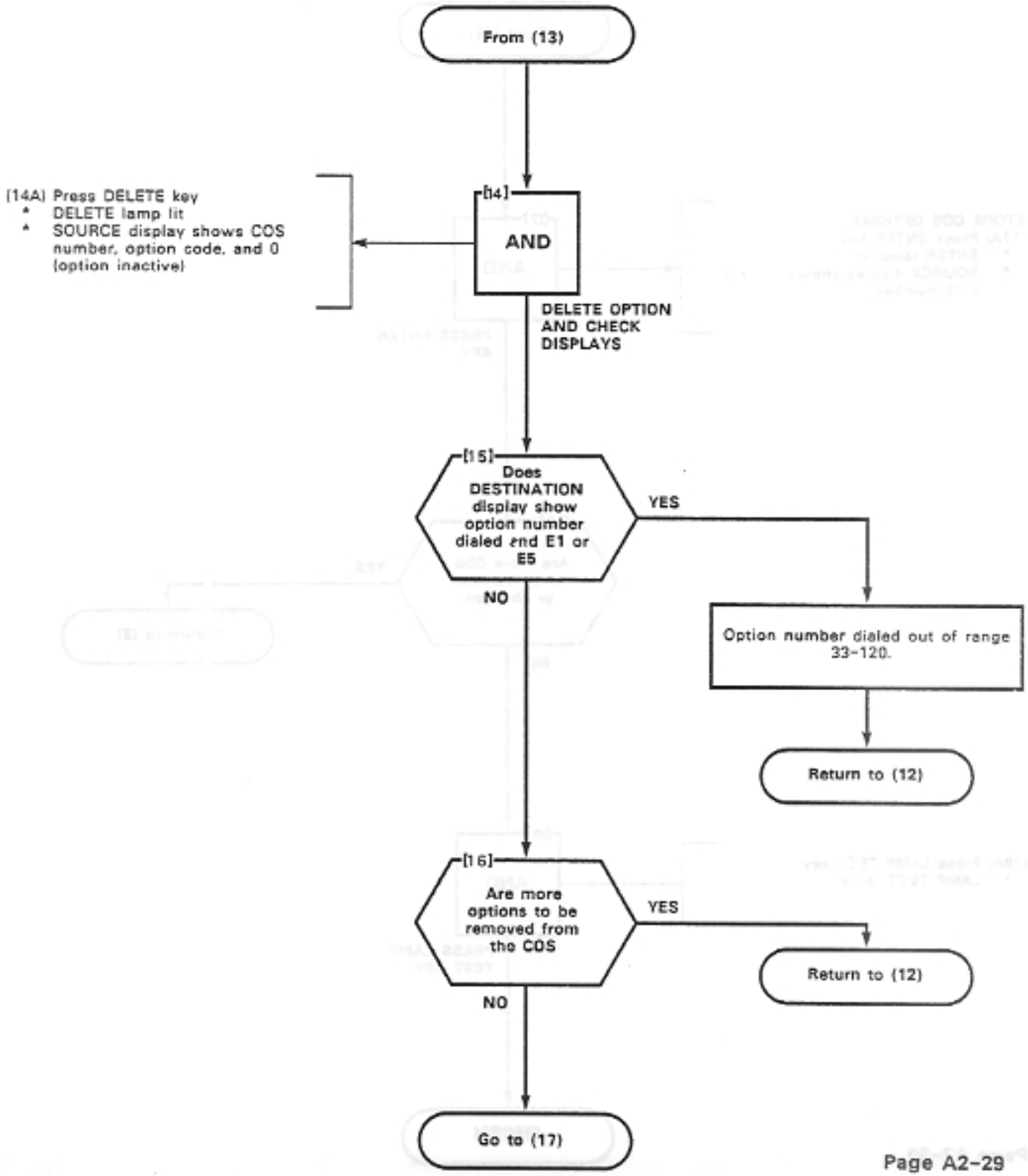

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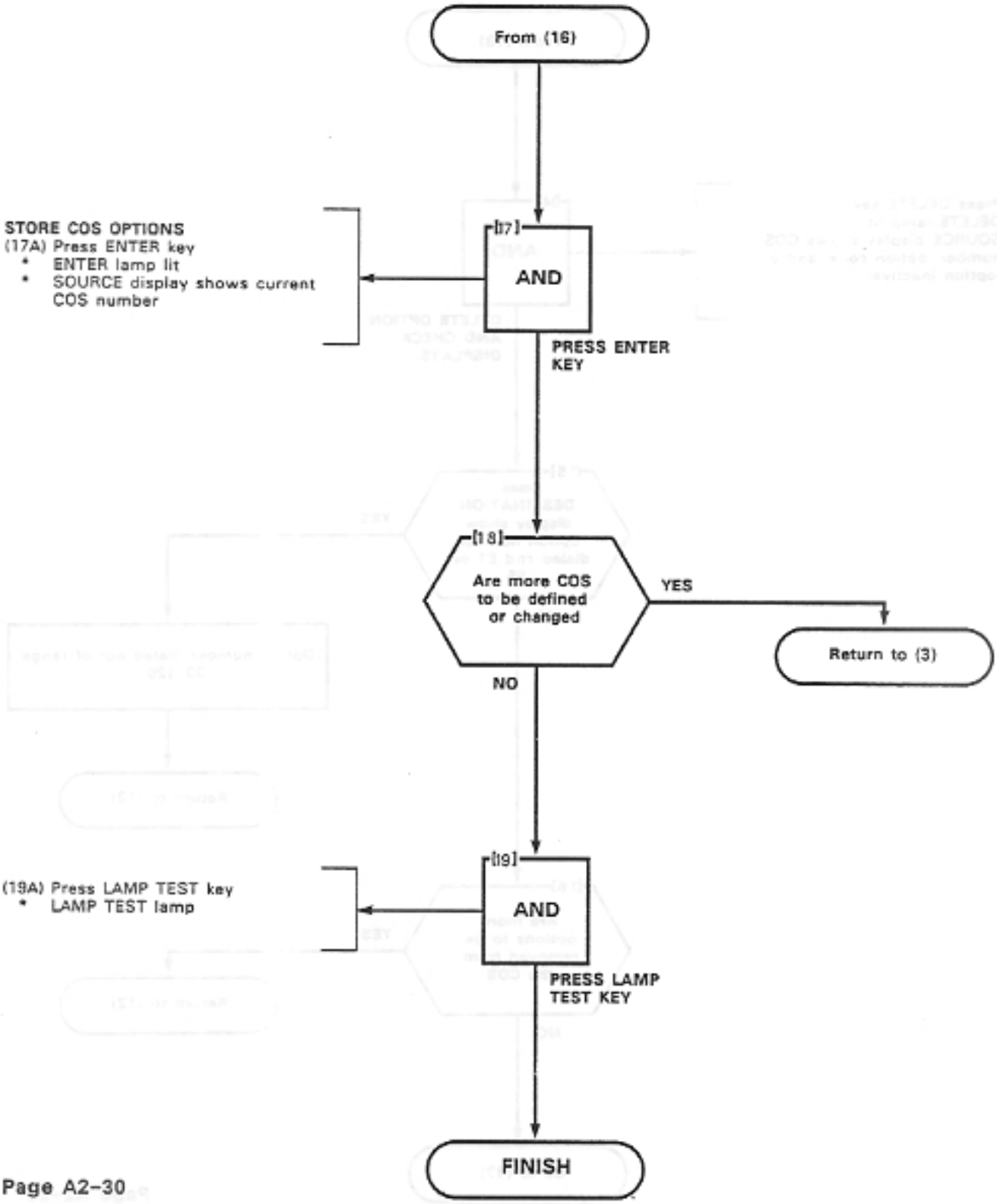

ASSIGN FEATURE ACCESS CODES
MAP210-205
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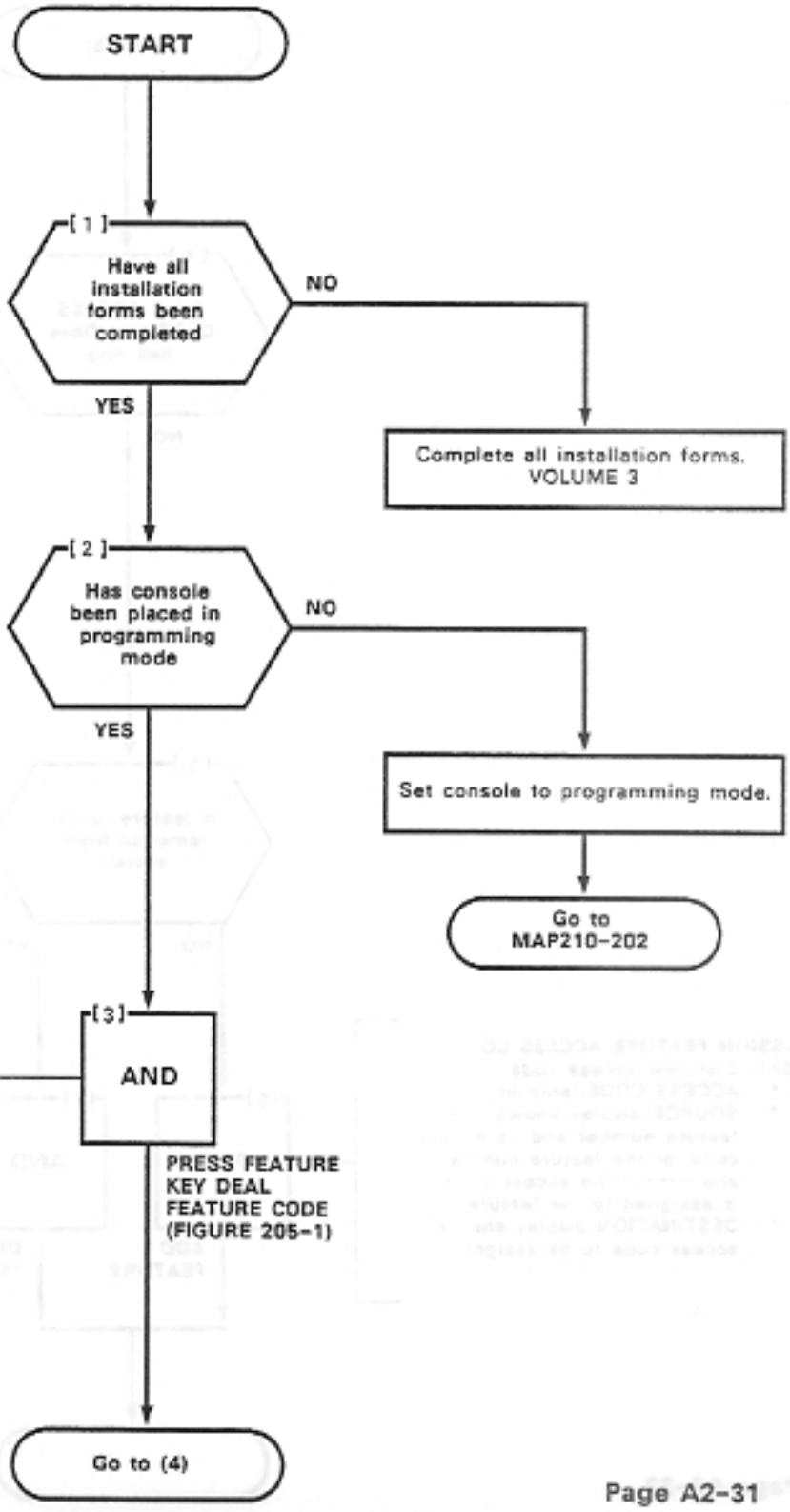
NOTES

(1) All entries are made from the console dial pad.
(2) FEATURE lamp lit throughout procedure.
(3) A display of EO indicates that an incorrect key was pressed, check procedure and press correct key.

SYNOPSIS

Enter feature number. (1-49)
Assign or delete access code.
Press ENTER key.
Repeat for all required features.



ASSIGN FEATURE ACCESS CODES
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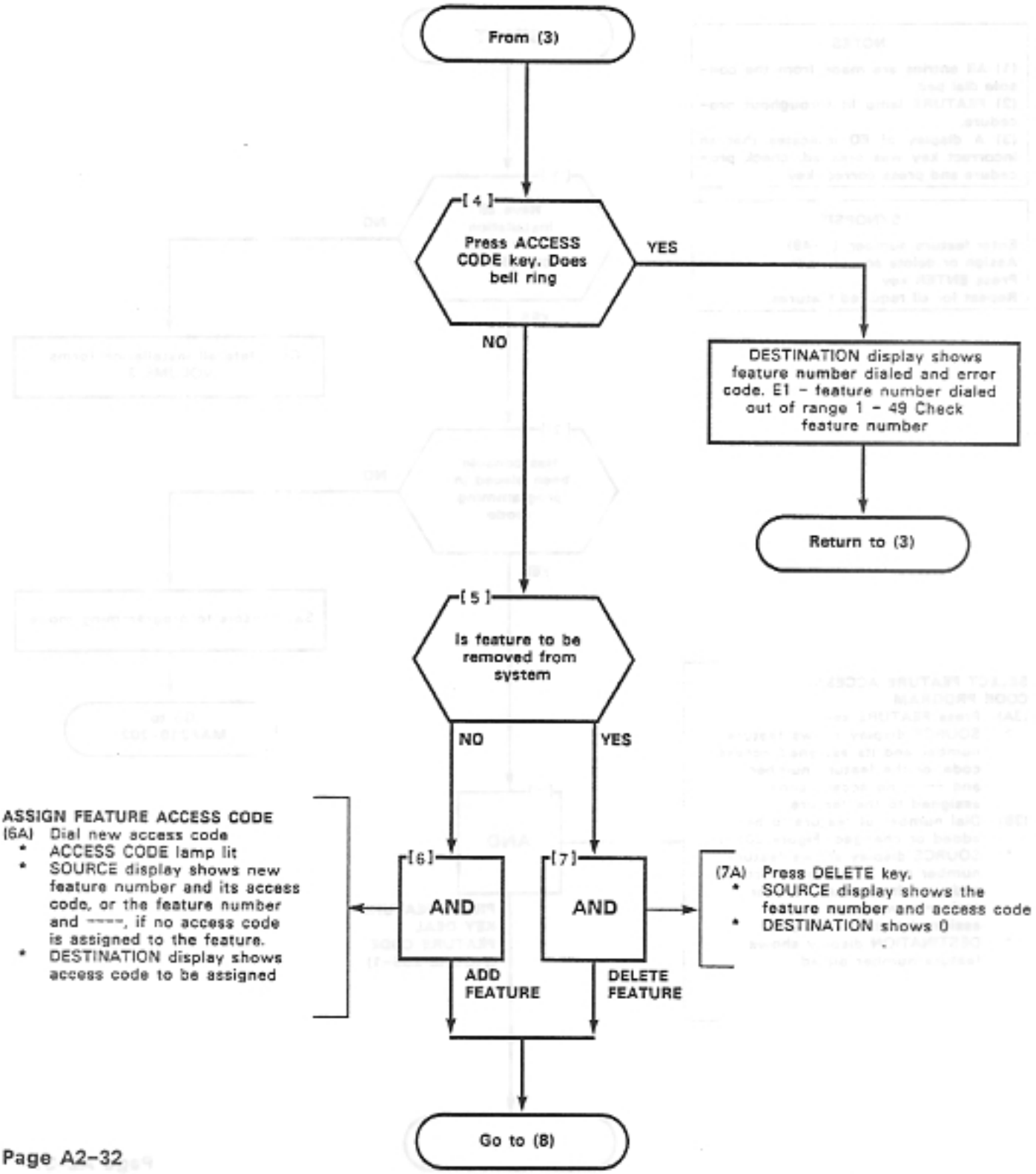

ASSIGN FEATURE ACCESS CODES
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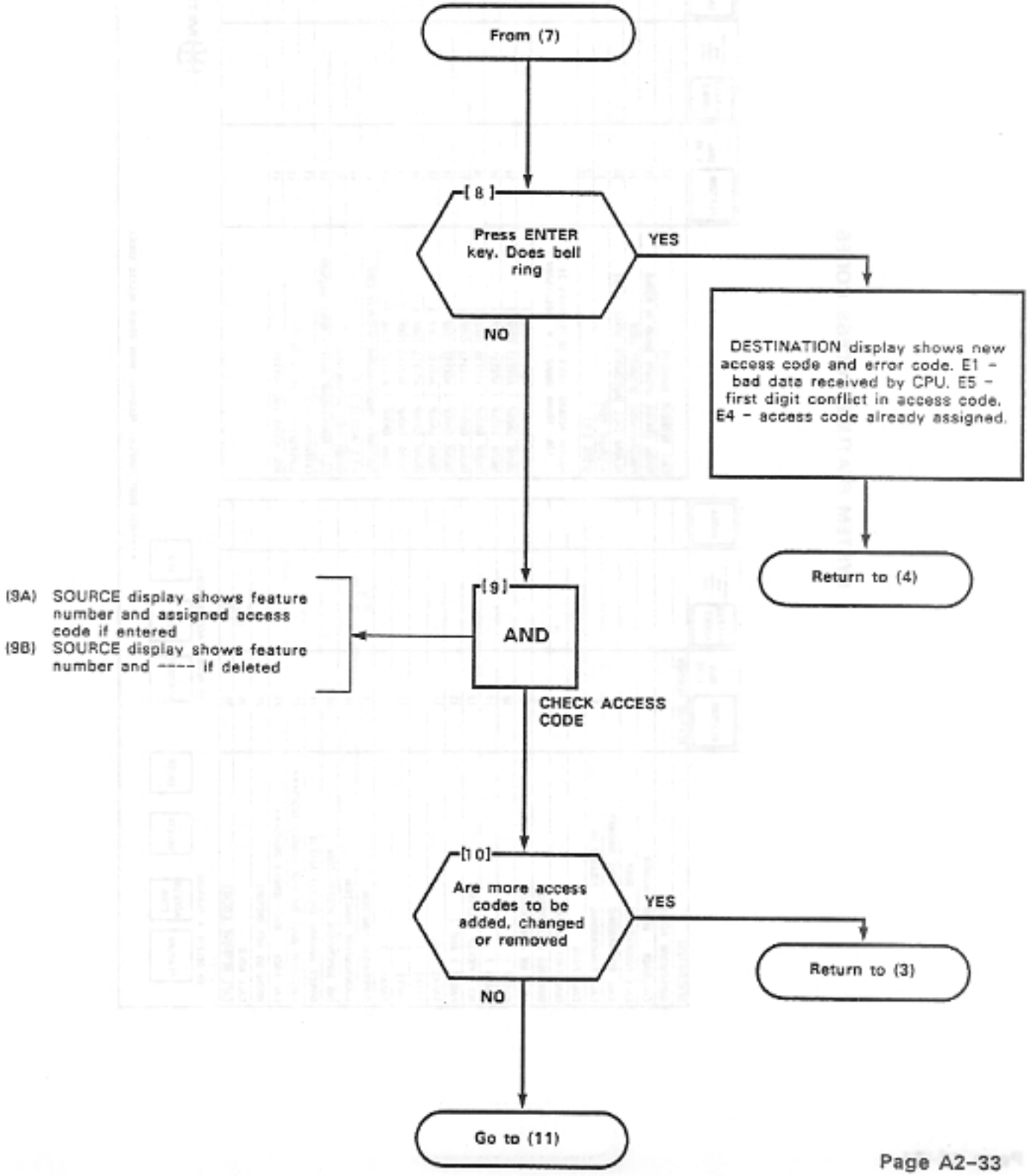

SYSTEM FEATURE ACCESS CODES

DESCRIPTION	FEATURE NUMBER (DIAL 1-49)	ACCESS CODES	ENTER
SUPERVISOR ACCESS	1	0	
CALLBACK - DONT ANSWER	2		
CALL FORWARDING - BUSY	3	51	
CALL FORWARDING - DONT ANSWER	4	52	
CALL FORWARDING - FOLLOW ME	5	53	
CALL PARK	6	50	
DIAL CALL PICKUP	7	*7	
DIRECTED CALL PICKUP	8	55	
MEET ME CONFERENCE	9	57	
PAGER 1	10	61	
PAGER 2	11	62	
HOLD PICKUP ACCESS	12	58	
PAGER 1 AND 2	13	60	
TAFAS - ALL	14	*8	
TAFAS - 1	15		
TAFES - 2	16		
TAFAS - 3	17		
SUPERVISOR FUNCTION	18	[illegible]	
MAINTENANCE FUNCTION	19	555	
DID SUPERVISOR ACCESS CODE	20		
DIRECT INWARD SYSTEM ACCESS	21		
EXECUTIVE BUSY OVERRIDE (SINGLE DIGIT)***	22		
CALLBACK - BUSY (SINGLE DIGIT)***	23	9	
ROOM DO NOT DISTURB	24		
CALL HOLD	25	66	
CALL RETRIEVE (LOCAL)	26	66	

DESCRIPTION	FEATURE NUMBER (DIAL 1-49)	ACCESS CODES	ENTER
CALL RETRIEVE (REMOTE)	27	67	
ROOM STATUS UPDATE (MAID IN ROOM)	28		
PROGRAMMING SECURITY CODE	29	5050	
ALARM CALL (AUTOMATIC WAKE - UP)	30		
ACCOUNT CODE	31		
SPEED CALL	32	40	
ASSIGN ACCESS CODES TO FEATURES 33-42 FOR TRUNK GROUP 1 IF NECESSARY			
TRUNK GROUP 1 ACCESS CODE 2	33		
TRUNK GROUP 1 ACCESS CODE 3	34		
TRUNK GROUP 1 ACCESS CODE 4	35		
TRUNK GROUP 1 ACCESS CODE 5	36		
TRUNK GROUP 1 ACCESS CODE 6	37		
TRUNK GROUP 1 ACCESS CODE 7	38		
TRUNK GROUP 1 ACCESS CODE 8	39		
TRUNK GROUP 1 ACCESS CODE 9	40		
TRUNK GROUP 1 ACCESS CODE 10	41		
TRUNK GROUP 1 ACCESS CODE 11	42		
CUSTOMER PROGRAMMING SECURITY CODE	43		
A.R.S. ACCESS CODE	44	9	
HANDS-FREE ACTIVATION	45	3	
CALL FORWARDING BUSY - DONT ANSWER	46	54	
EXTENSION RESET	47	585	
SUPERSET 4 LOOPBACK TEST	48		
ACD AGENT LOG ACCESS	49		

NOTES

TO DELETE A FEATURE

FEATURE | ACCESS CODE | DELETE | ENTER

TO REVIEW ACCESS CODES

FEATURE | NEXT | NEXT

***FIRST DIGIT CONFLICT ALLOWED WITH OTHER ACCESS CODES

MITEL

ASSIGN FEATURE ACCESS CODES
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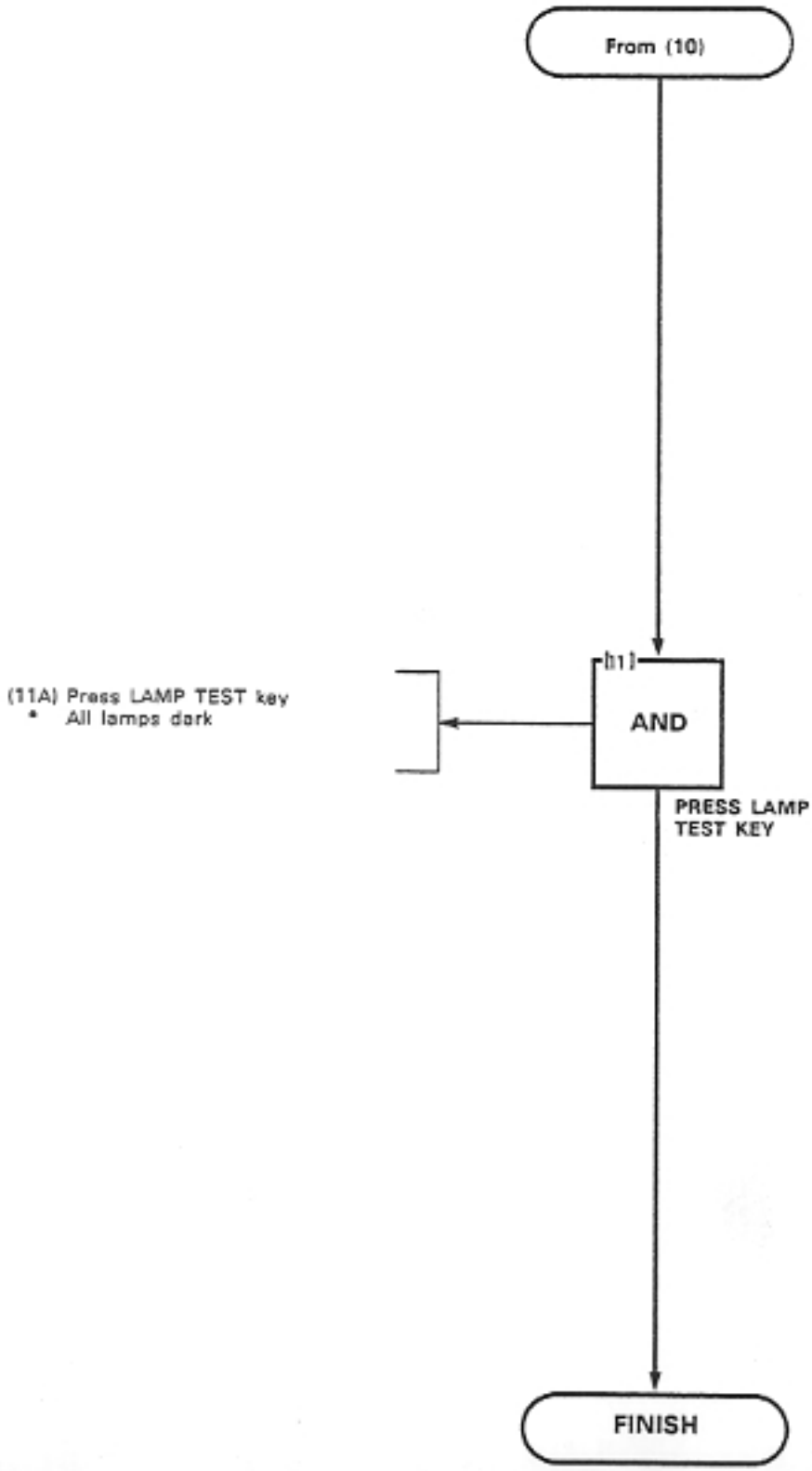

PROGRAM EXTENSIONS
MAP210-206
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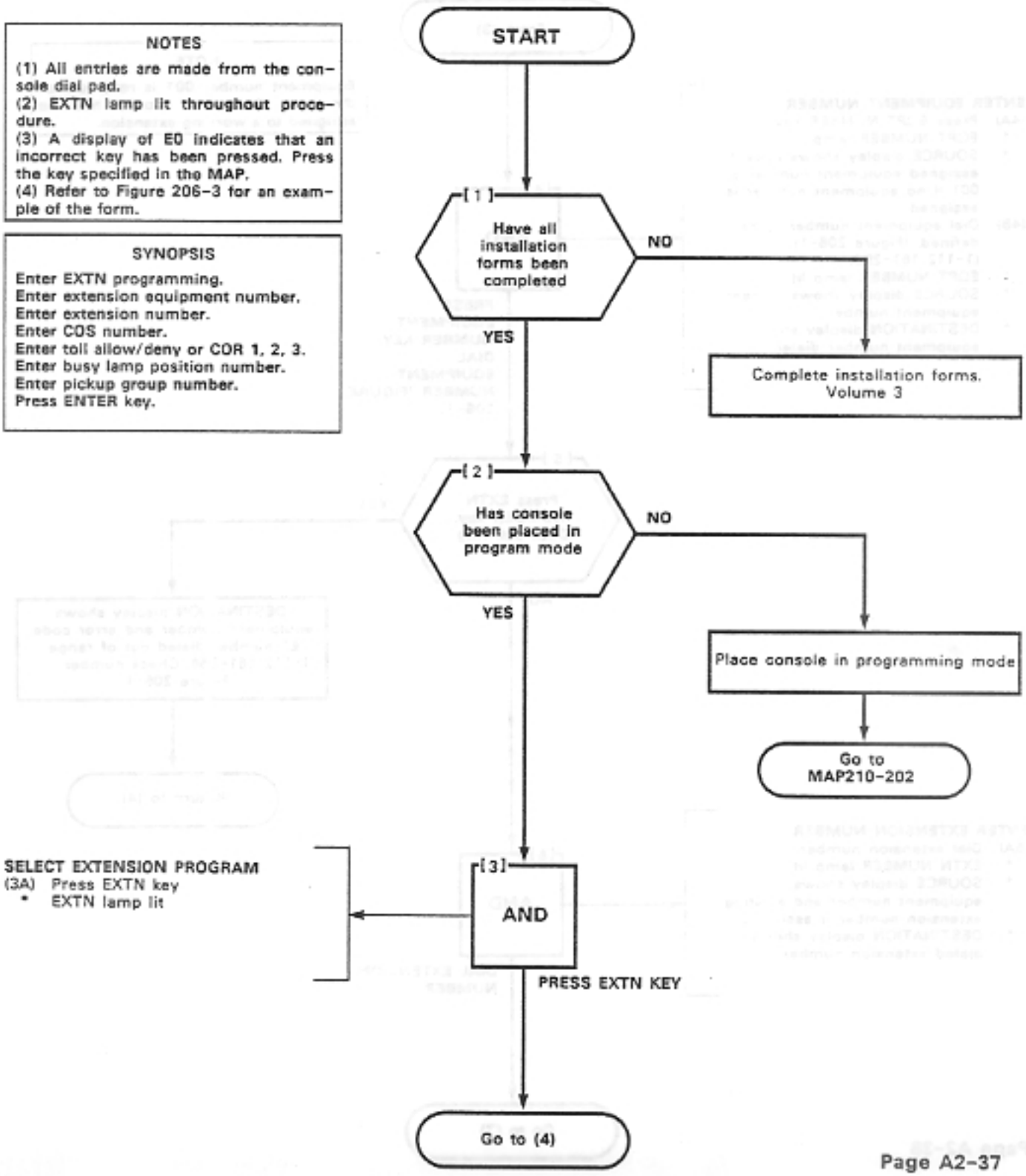
NOTES

(1) All entries are made from the console dial pad.
(2) EXTN lamp lit throughout procedure.
(3) A display of E0 indicates that an incorrect key has been pressed. Press the key specified in the MAP.
(4) Refer to Figure 206-3 for an example of the form.

SYNOPSIS

Enter EXTN programming.
Enter extension equipment number.
Enter extension number.
Enter COS number.
Enter toll allow/deny or COR 1, 2, 3.
Enter busy lamp position number.
Enter pickup group number.
Press ENTER key.



PROGRAM EXTENSIONS
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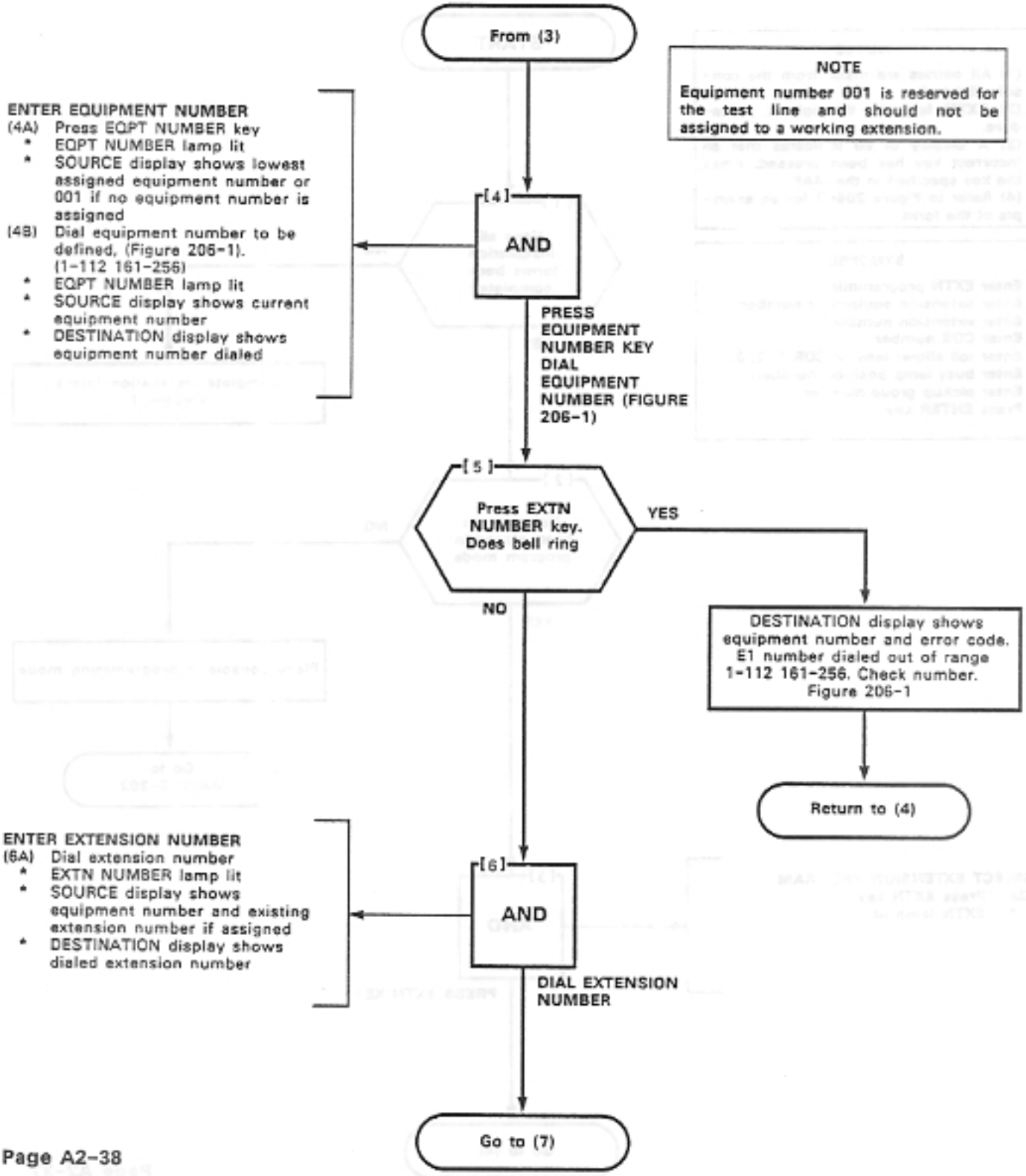

PROGRAM EXTENSIONS
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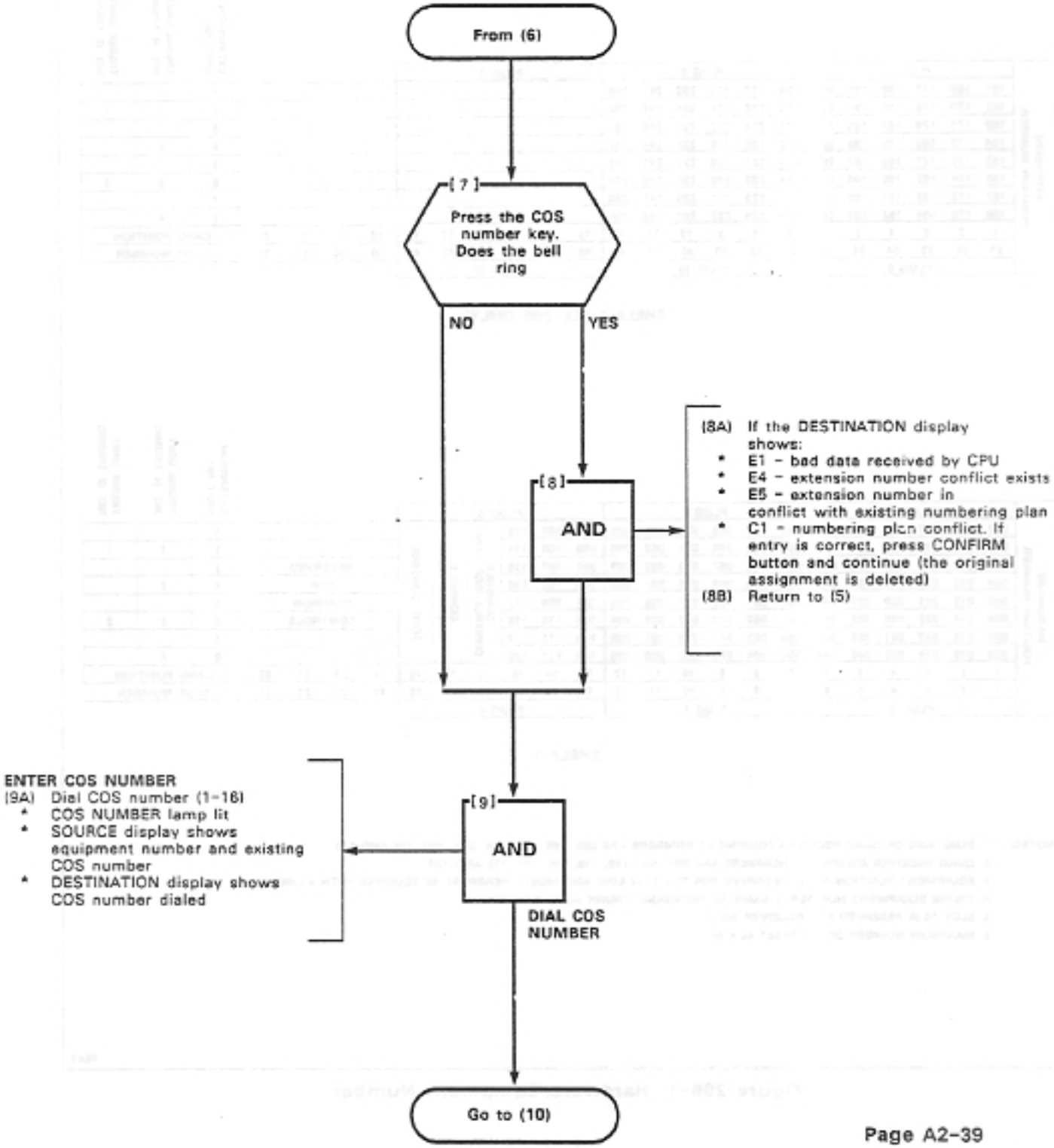

HARDWARE POSITION NUMBER	PLUG 7						PLUG 9						PLUG 11										EXTENSION UNIT NO.	TRUNK UNIT NO. (4 TRUNK)	TRUNK UNIT NO. (2 TRUNK)
	161	169	177	185	193	201	209	217	225	233	241	249											1		
	162	170	178	186	194	202	210	218	226	234	242	250											2	1	1
	163	171	179	187	195	203	211	219	227	235	243	251											3		
	164	172	180	188	196	204	212	220	228	236	244	252											4	2	
	165	173	181	189	197	205	213	221	229	237	245	253											5		
	166	174	182	190	198	206	214	222	230	238	246	254											6	3	2
	167	175	183	191	199	207	215	223	231	239	247	255											7		
	168	176	184	192	200	208	216	224	232	240	248	256											8	4	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	CARD POSITION		
	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	SLOT NUMBER		
	PLUG 8						PLUG 10						PLUG 12												

SHELF 2 (SX-200 ONLY)

HARDWARE POSITION NUMBER	PLUG 1						PLUG 3						PLUG 5										EXTENSION UNIT NO.	TRUNK UNIT NO. (4 TRUNK)	TRUNK UNIT NO. (2 TRUNK)
	001	009	017	025	033	041	049	057	065	073	081	089	097	105	113	CONSOLE CONTROL/RCP CARD	CONSOLE CONTROL CARD	TONE CONTROL					1		
	002	010	018	026	034	042	050	058	066	074	082	090	098	106	114				RESERVED				2	1	1
	003	011	019	027	035	043	051	059	067	075	083	091	099	107	115				FOR				3		
	004	012	020	028	036	044	052	060	068	076	084	092	100	108	116				COMMON				4	2	
	005	013	021	029	037	045	053	061	069	077	085	093	101	109	117				CONTROLS				5		
	006	014	022	030	038	046	054	062	070	078	086	094	102	110	118								6	3	2
	007	015	023	031	039	047	055	063	071	079	087	095	103	111	119								7		
	008	016	024	032	040	048	056	064	072	080	088	096	104	112	120								8	4	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	CARD POSITION		
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	SLOT NUMBER		
	PLUG 2						PLUG 4						PLUG 6												

SHELF 1

NOTES:
1. DUAL AND OR QUAD RECEIVER EQUIPMENT NUMBERS ARE 090, 098, 106, 114, 092, 100, 108 AND 116.
2. QUAD RECEIVER EQUIPMENT NUMBERS ARE 094, 102, 110, 118, 096, 104, 112 AND 120.
3. EQUIPMENT POSITION 001 IS RESERVED FOR THE TEST LINE AND MUST THEREFORE BE EQUIPPED WITH A LINE CARD.
4. TRUNK EQUIPMENT NUMBER IS SAME AS INDIVIDUAL TRUNK ACCESS CODE.
5. SLOT 15 IS RESERVED FOR RECEIVER NO. 1.
6. MAXIMUM NUMBER OF SUPERSET 4s = 64

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Figure 206-1 Hardware/Equipment Number

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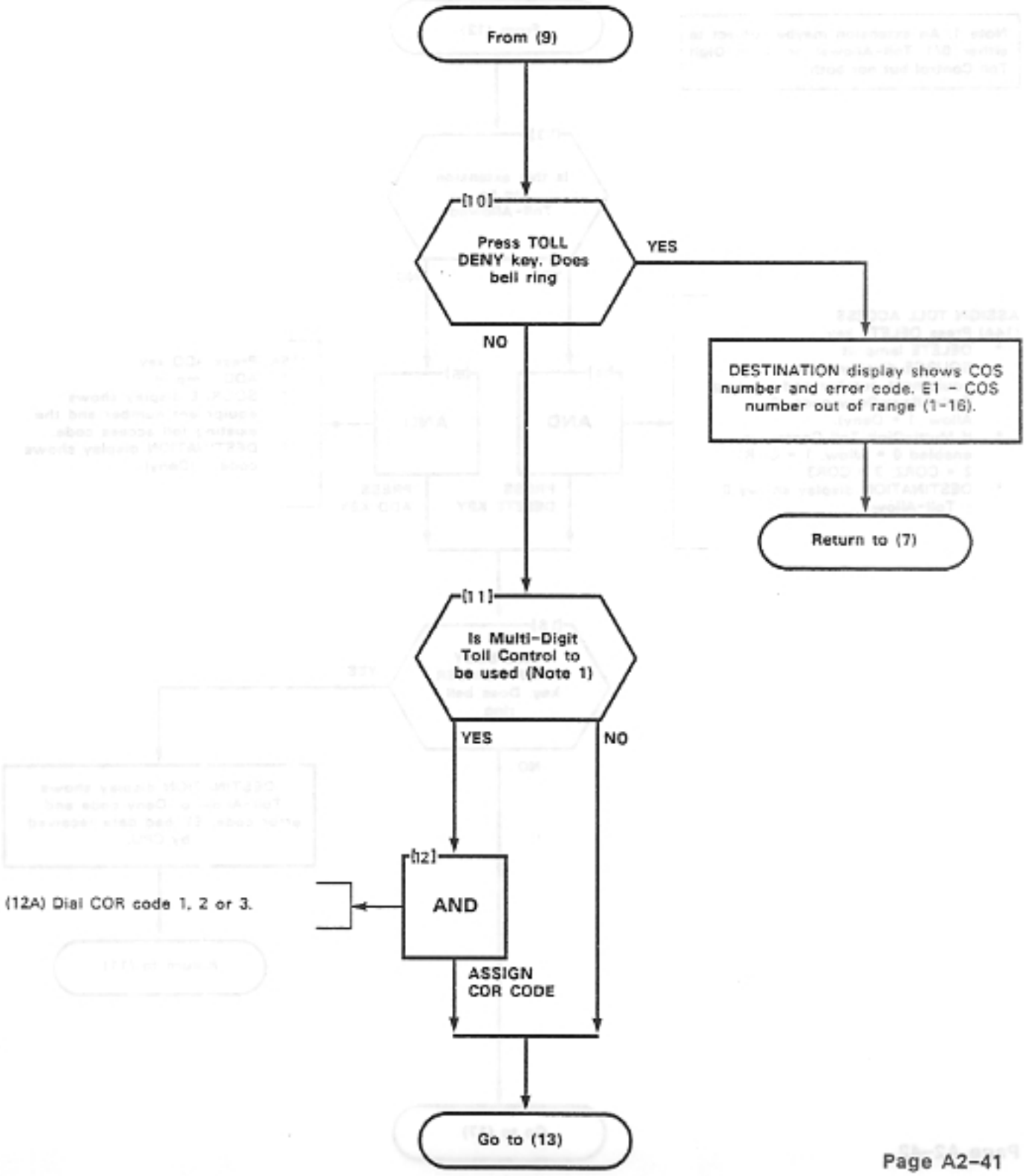

PROGRAM EXTENSIONS
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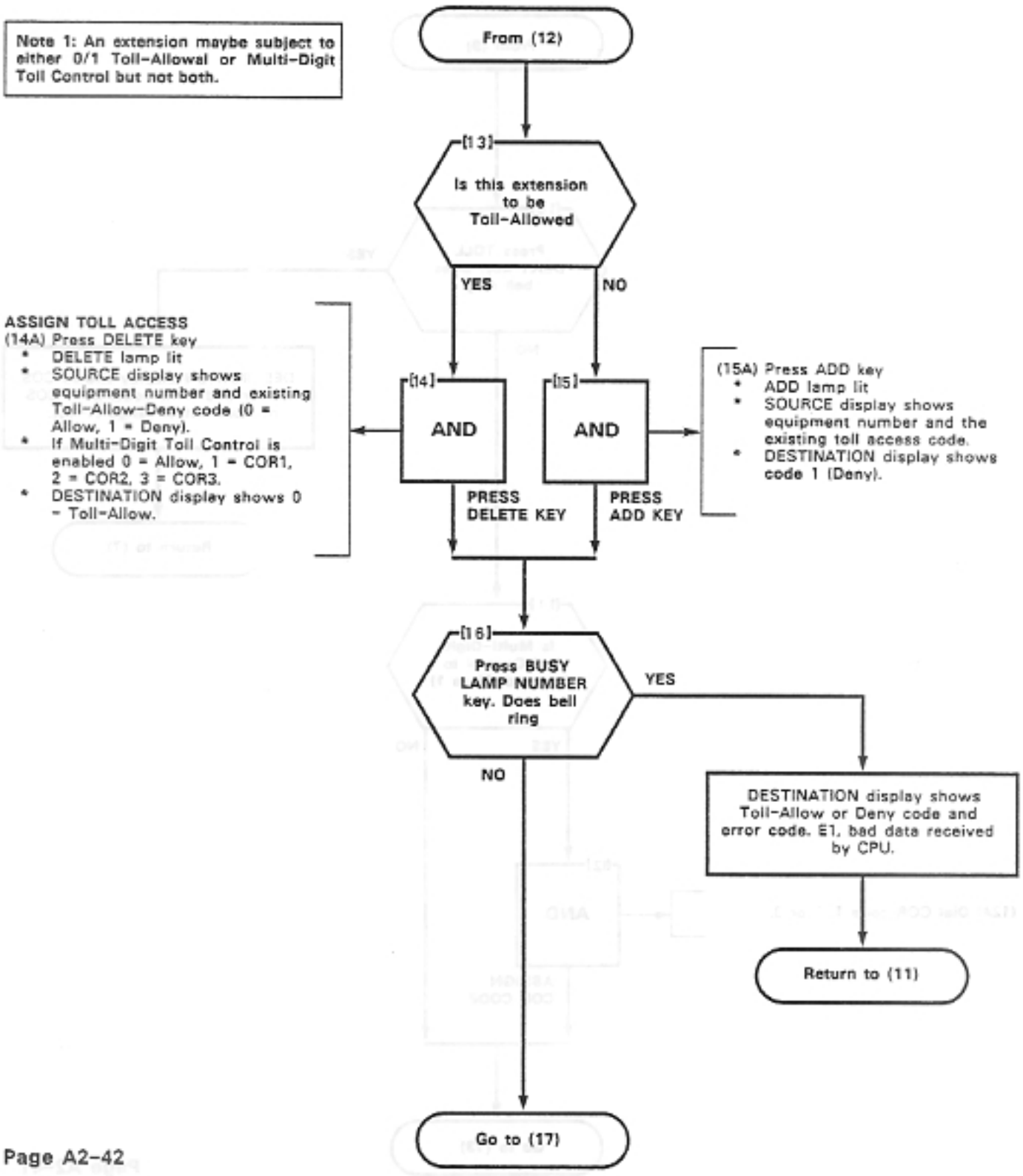
Note 1: An extension maybe subject to either 0/1 Toll-Allowal or Multi-Digit Toll Control but not both.



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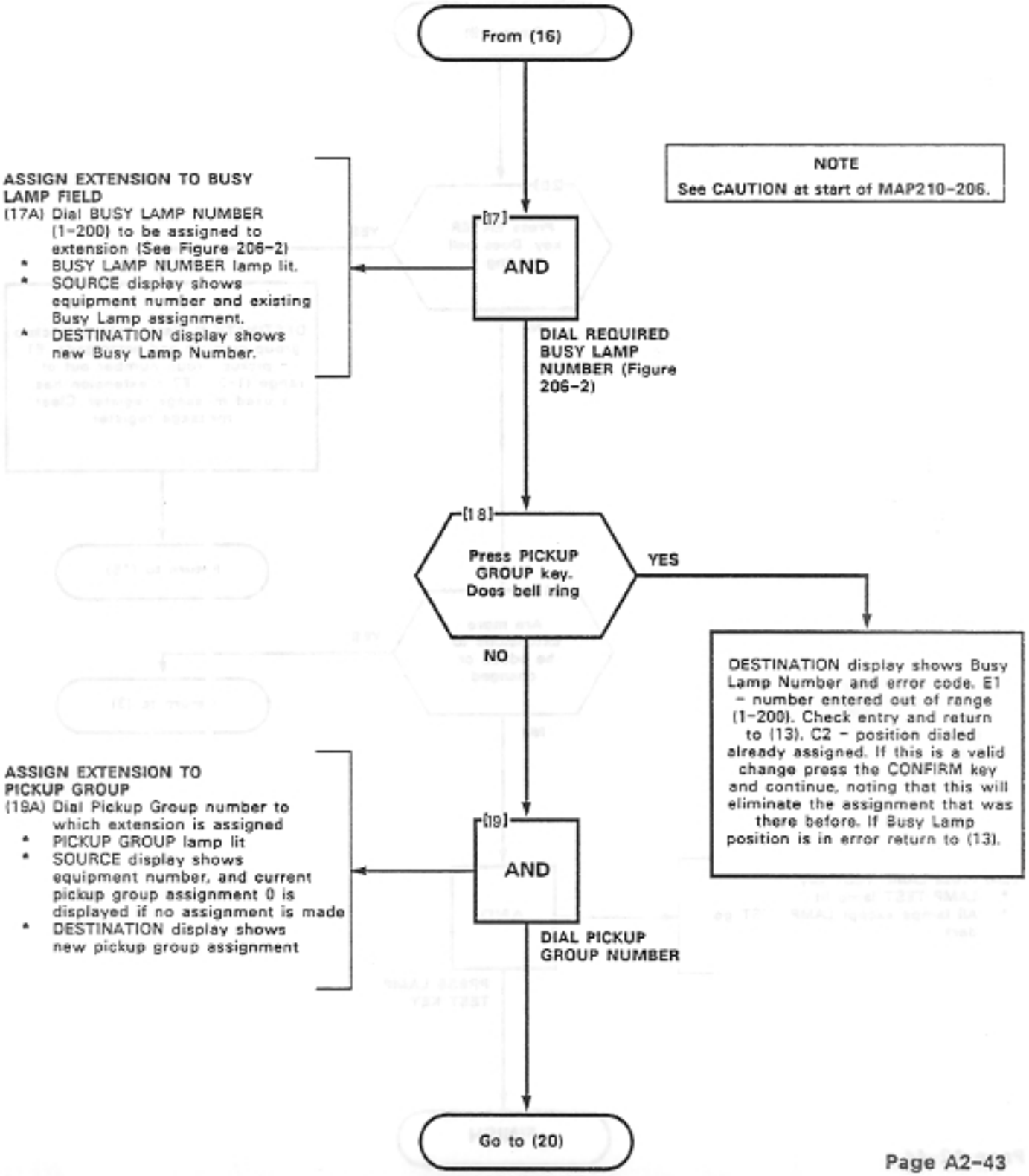

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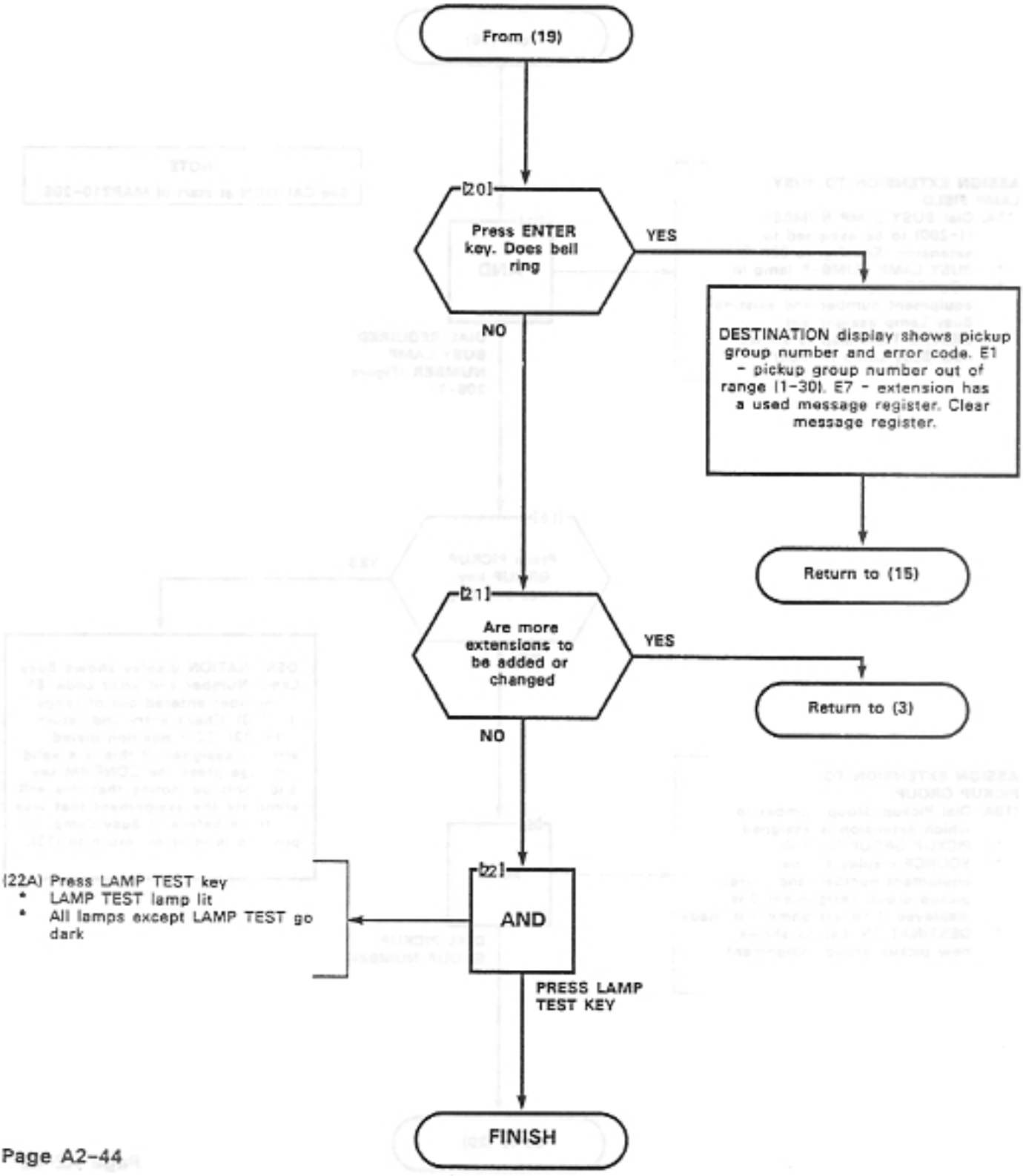

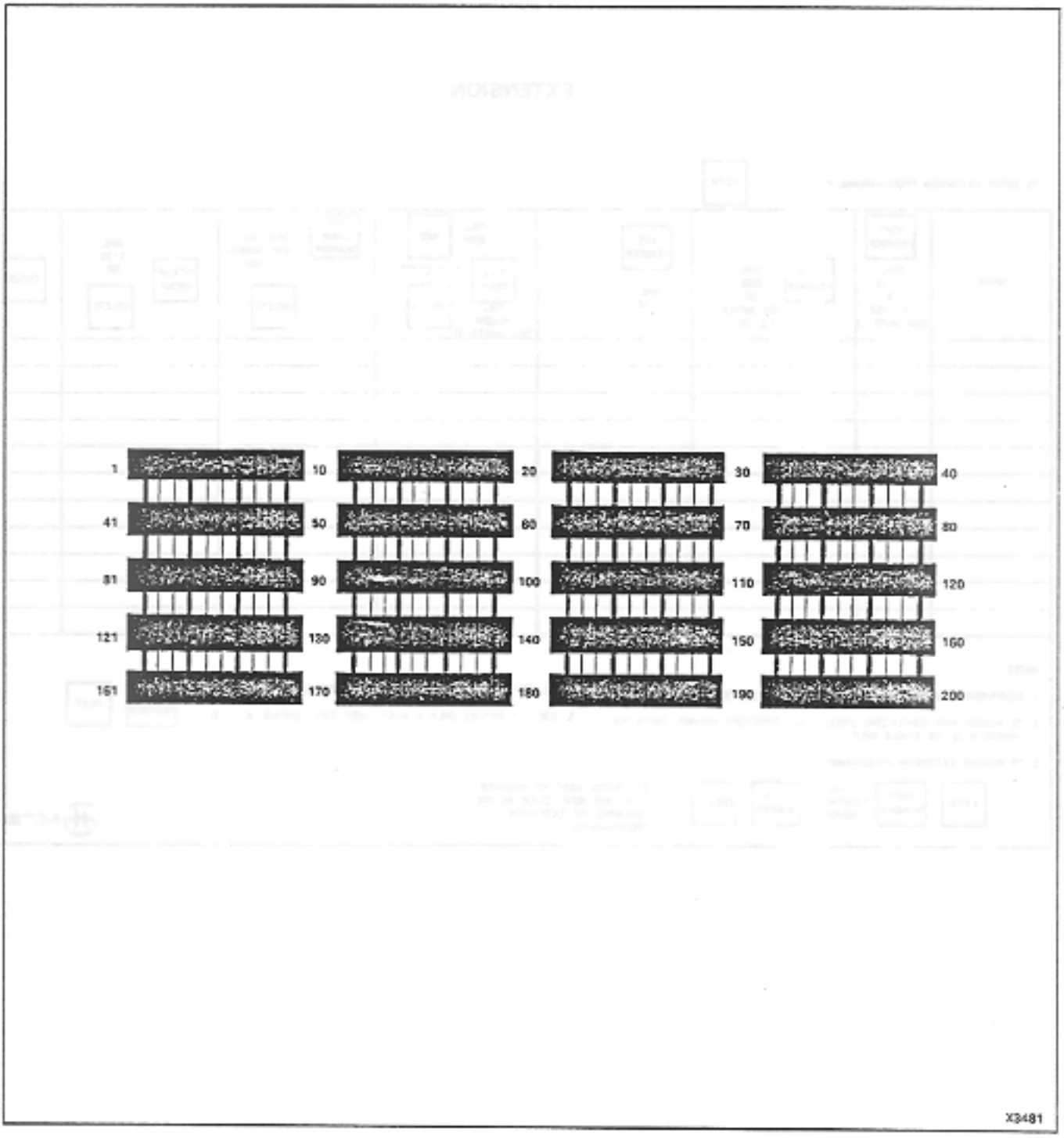

Figure 206-2 Busy Lamp Position Numbering

EXTENSION

TO ENTER EXTENSION PROGRAMMING PRESS [EXTN]

NAME	[EQPT NUMBER] DIAL 1-112 OR 161-256 (SEE NOTE 1)	[EXTN NUMBER] DIAL CODE OR SEE NOTES 2,3, OR 4	[COS NUMBER] DIAL 1-16	TOLL DENY [ADD] [TOLL DENY] [DELETE] TOLL ALLOW (SEE NOTES 5)	[BUSY LAMP NUMBER] DIAL BUSY LAMP NUMBER 1-200 [DELETE]	[PICKUP GROUP] DIAL 1-30 OR [DELETE]	[ENTER]

NOTES:

1. EQUIPMENT NUMBERS 161-256 APPLIES TO SX-200 ONLY
2. TO ASSIGN NON CONFLICTING SINGLE DIGIT DIRECTORY NUMBER, ENTER N# WHERE N IS THE SINGLE DIGIT
3. TO REMOVE EXTENSION PROGRAMMING

   [EXTN] [EQPT NUMBER] DIAL EQUIPMENT NUMBER [EXTN NUMBER] [DELETE]

   EXTENSION MUST BE REMOVED FROM ANY HUNT GROUP BEFORE REMOVING THE EXTENSION PROGRAMMING

4. TO SEE THE NEXT EQPT. NUMBER ASSIGNED AS AN EXTENSION: [EQPT NUMBER] [NEXT]
5. COR 1-3 APPLIES ONLY IF MULTI DIGIT TOLL CONTROL IS USED

MITEL

EXTENSION

TO ENTER EXTENSION PROGRAMMING PRESS . [EXTN]

NAME	[EQPT NUMBER] DIAL 1-112 OR 161-256 (SEE NOTE 1)	[EXTN NUMBER] DIAL CODE OR SEE NOTES 2,3, OR 4	[COS NUMBER] DIAL 1-16	TOLL DENY [ADD] [TOLL DENY] [DELETE] TOLL ALLOW (SEE NOTES 5)	[BUSY LAMP NUMBER] DIAL BUSY LAMP NUMBER 1-200 [DELETE]	[PICKUP GROUP] DIAL 1-30 OR [DELETE]	[ENTER]

NOTES

1. EQUIPMENT NUMBERS 161-256 APPLIES TO SX-200 ONLY
2. TO ASSIGN NON CONFLICTING SINGLE DIGIT DIRECTORY NUMBER, ENTER N# WHERE N IS THE SINGLE DIGIT
3. TO REMOVE EXTENSION PROGRAMMING

   [EXTN] [EQPT NUMBER] DIAL EQUIPMENT NUMBER [EXTN NUMBER] [DELETE]

   (EXTENSION MUST BE REMOVED FROM ANY HUNT GROUP BEFORE REMOVING THE EXTENSION PROGRAMMING)

4. TO SEE THE NEXT EQPT. NUMBER ASSIGNED AS AN EXTENSION: [EQPT NUMBER] [NEXT]
5. COR 1-3 APPLIES ONLY IF MULTI DIGIT TOLL CONTROL IS USED

MITEL

PROGRAM EXTENSION HUNT GROUPS
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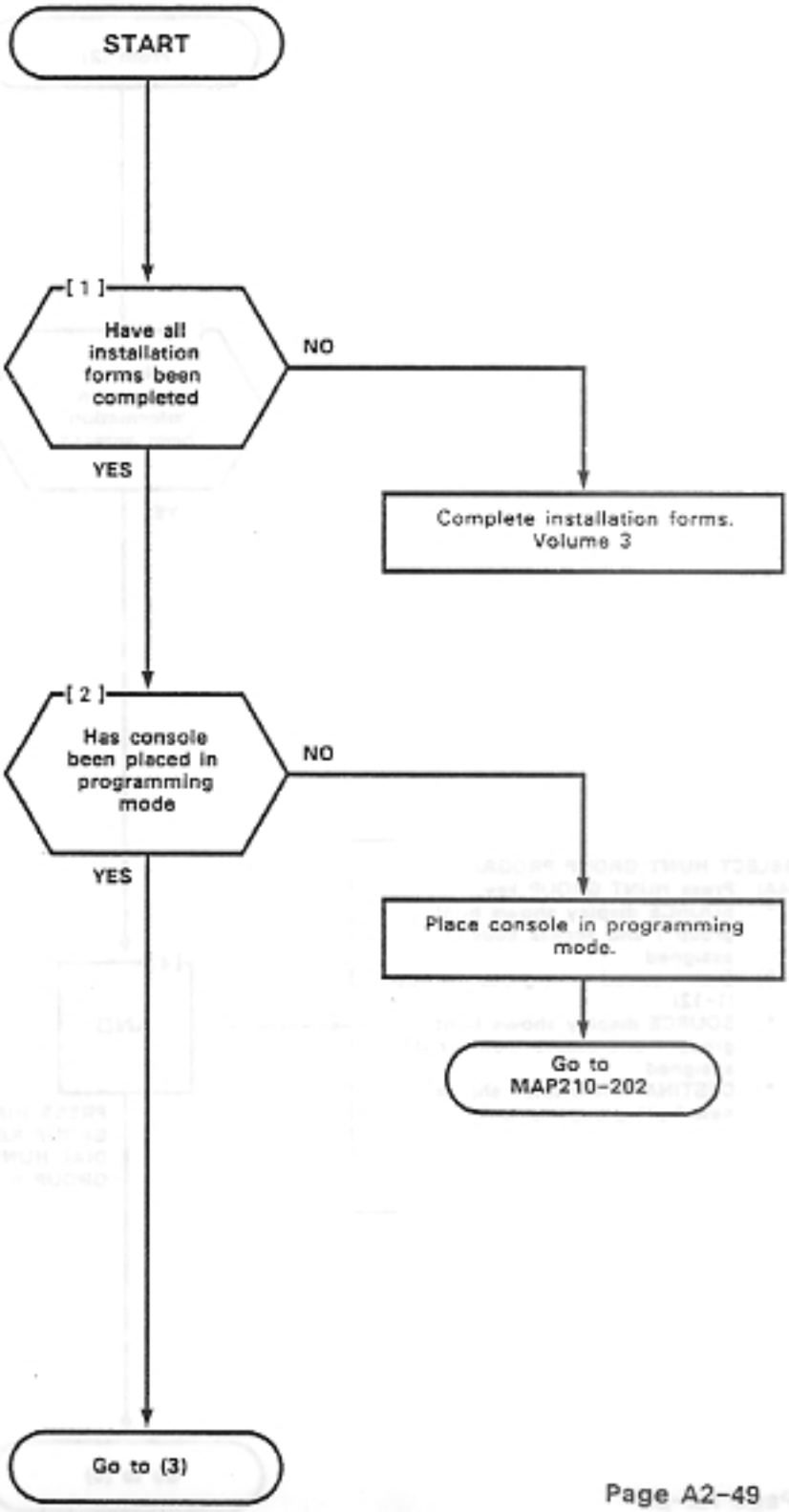
NOTES

(1) All entries are made from the console dial pad.
(2) HUNT GROUP lamp remains lit throughout procedure.
(3) A display of E0 indicates that an incorrect key has been pressed. Press the key specified in the MAP.
(4) If any equipment number is to be changed within a hunt group, the hunt group must be reentered.
(5)Refer to Figure 207-1 for an example of the programming form.

SYNOPSIS

Enter hunt group number (1-12).
Enter master hunt number.
Enter all required equipment numbers.
Determine type of hunting.
Press ENTER key.



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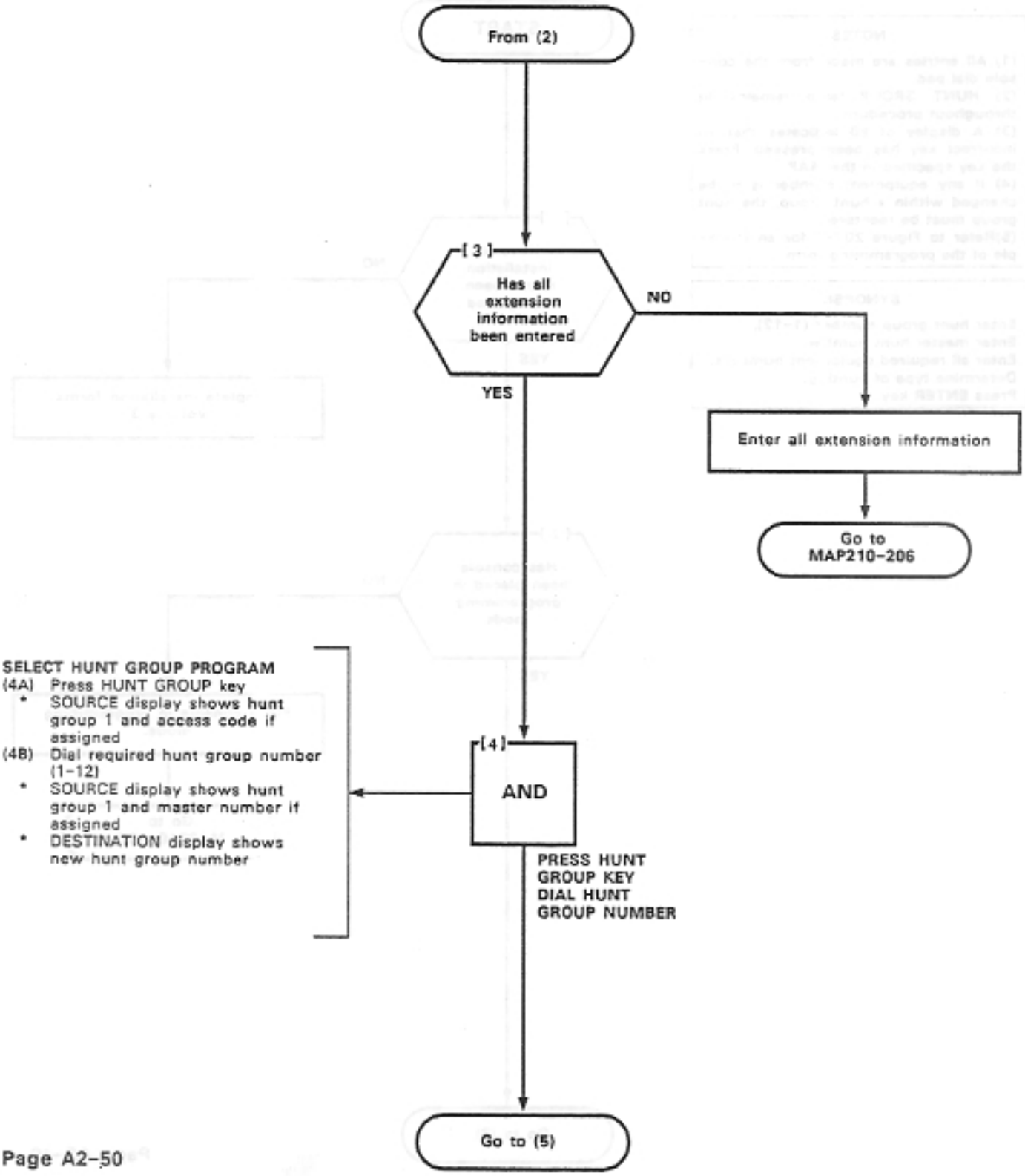

NOTE
1. EACH HUNT GROUP MUST CONSIST OF EITHER AGENTS ONLY, OR RECORDINGS ONLY.
2. ALL RECORDINGS IN THE SAME HUNT GROUP SHOULD HAVE THE SAME MESSAGE.

HUNT GROUPS
AGENT/RECORDING GROUPS

TO ENTER HUNT GROUP PROGRAMMING PRESS [HUNT GROUP] EXTENSION OR TRUNK INFORMATION MUST BE ENTERED BEFORE TRUNK GROUP DATA

[HUNT GROUP] DIAL 1-12 SEE NOTES 1 AND 2	[ACCESS CODE] DIAL CODE OR [DELETE]	PRESS [EQPT NUMBER] BEFORE DIALING EACH EQUIPMENT NUMBER ENTRY [ENTER]												

TO SEE EQUIPMENT NUMBERS CURRENTLY IN A GROUP

[HUNT GROUP] DIAL NUMBER 1-12 [EQPT NUMBER] [NEXT] [NEXT]

TO SEE ALL GROUPS

[HUNT GROUP] [NEXT] [NEXT]

TO MAKE A CHANGE TO A GROUP, THE LIST OF MEMBERS MUST BE RE-ENTERED. INDIVIDUAL MEMBERS CANNOT BE DELETED OR CHANGED. THE EXISTING GROUP LIST IS AUTOMATICALLY DELETED WHEN YOU START TO ENTER A NEW ONE.

FOR CIRCULAR GROUPS FIRST AND LAST NUMBERS MUST BE IDENTICAL

TO DELETE A GROUP

[HUNT GROUP] DIAL NUMBER 1-12 [ACCESS CODE] [DELETE] [ENTER]

MITEL

NOTE
1. EACH HUNT GROUP MUST CONSIST OF EITHER AGENTS ONLY, OR RECORDINGS ONLY.
2. ALL RECORDINGS IN THE SAME HUNT GROUP SHOULD HAVE THE SAME MESSAGE.

HUNT GROUPS
AGENT/RECORDING GROUPS

TO ENTER HUNT GROUP PROGRAMMING PRESS: HUNT GROUP

EXTENSIONS OR TRUNK INFORMATION MUST BE ENTERED BEFORE TRUNK GROUP DATA!

HUNT GROUP — DIAL 1-12 (SEE NOTES 1 AND 2)	ACCESS CODE — DIAL CODE OR DELETE	PRESS EQPT NUMBER BEFORE DIALING EACH EQUIPMENT NUMBER ENTRY — ENTER												

TO SEE EQUIPMENT NUMBERS CURRENTLY IN A GROUP:
HUNT GROUP — DIAL NUMBER 1-12 — EQPT NUMBER — NEXT — NEXT

TO SEE ALL GROUPS:
HUNT GROUP — NEXT — NEXT

TO MAKE A CHANGE TO A GROUP, THE LIST OF MEMBERS MUST BE RE-ENTERED. INDIVIDUAL MEMBERS CANNOT BE DELETED OR CHANGED. THE EXISTING GROUP LIST IS AUTOMATICALLY DELETED WHEN YOU START TO ENTER A NEW ONE.

FOR CIRCULAR GROUPS FIRST AND LAST NUMBERS MUST BE IDENTICAL.

TO DELETE A GROUP:
HUNT GROUP — DIAL NUMBER 1-12 — ACCESS CODE — DELETE — ENTER

MITEL

PROGRAM EXTENSION HUNT GROUPS
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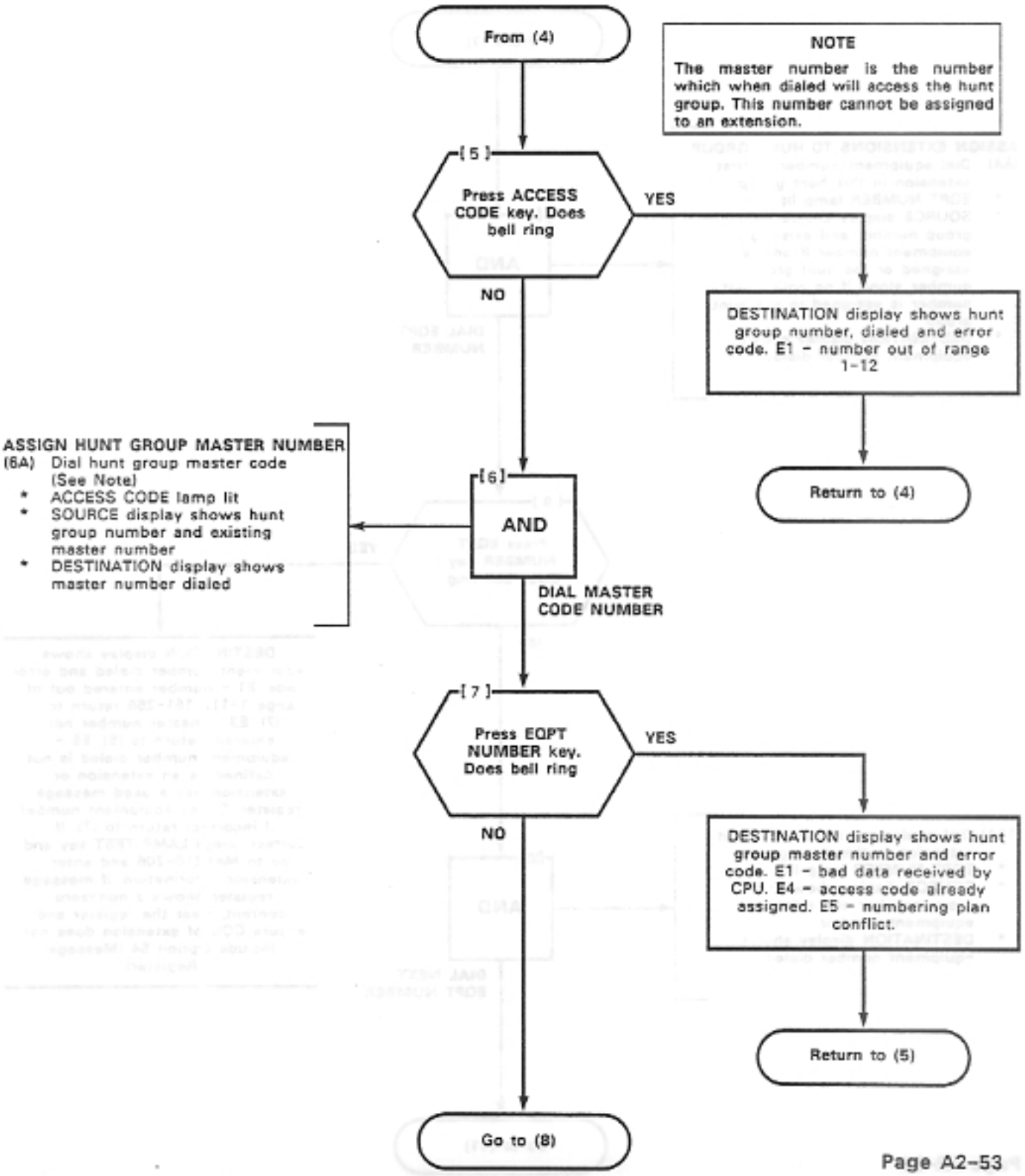

PROGRAM EXTENSION HUNT GROUPS
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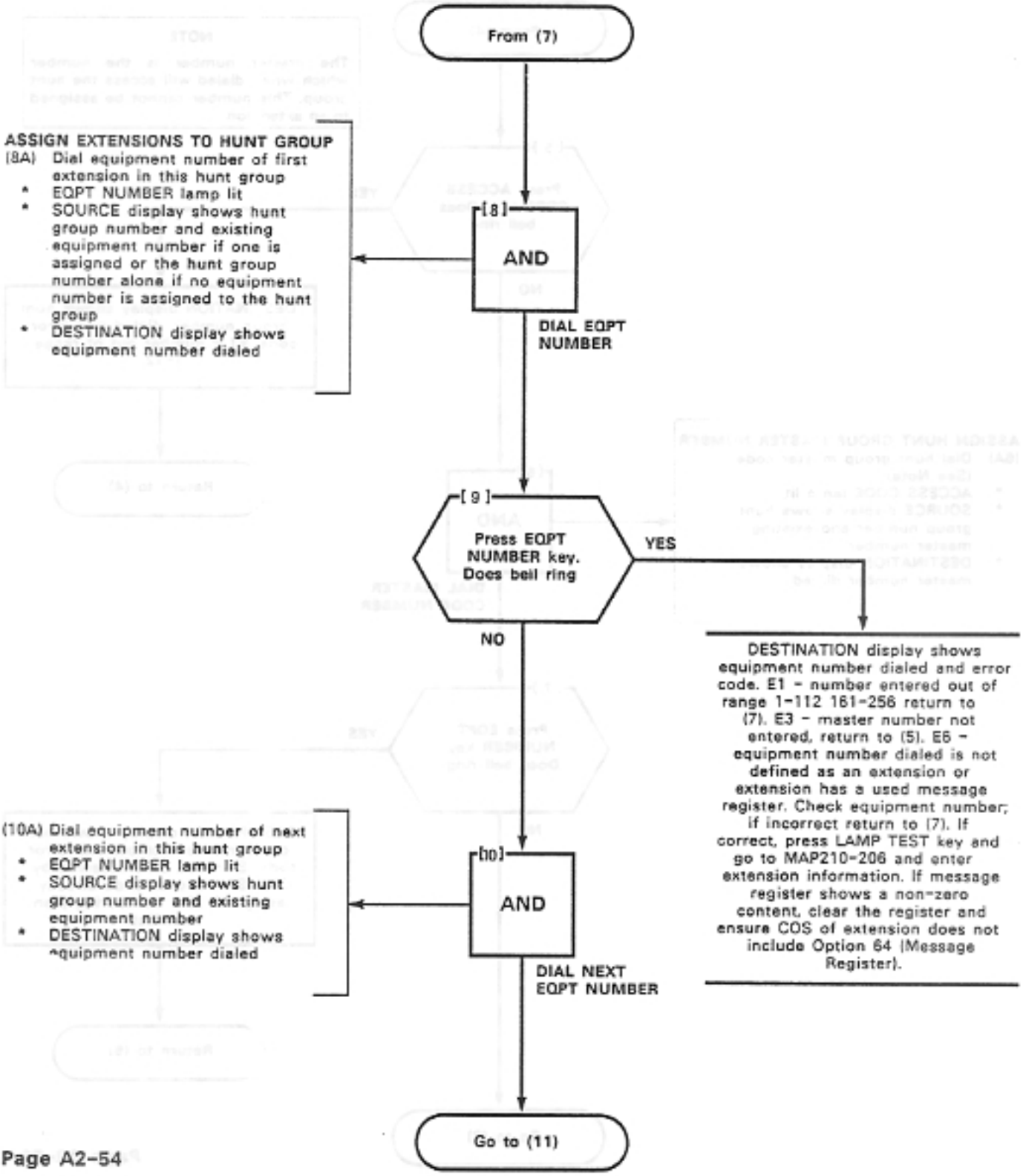

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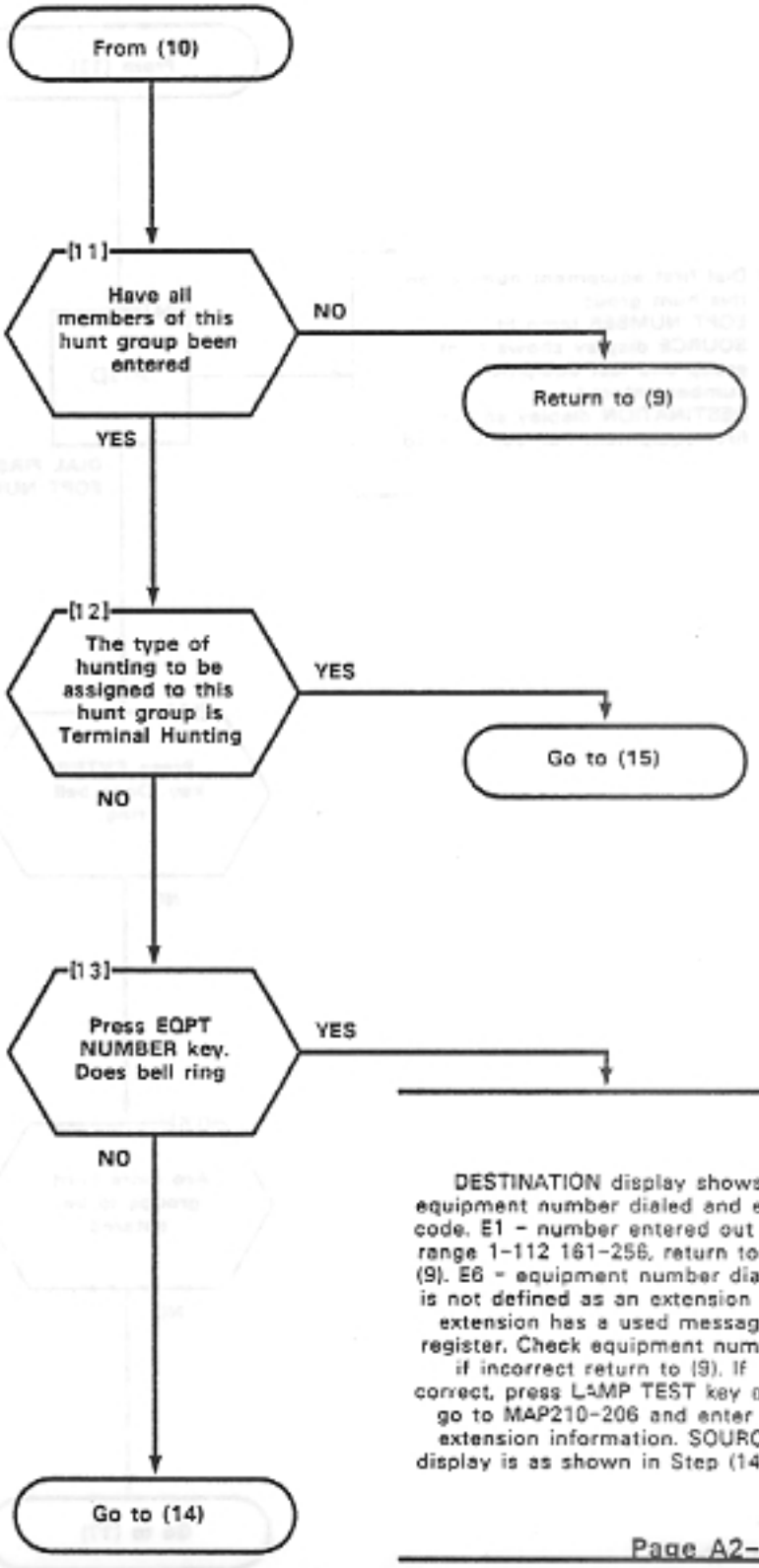

DESTINATION display shows equipment number dialed and error code. E1 - number entered out of range 1-112 161-256, return to (9). E6 - equipment number dialed is not defined as an extension or extension has a used message register. Check equipment number, if incorrect return to (9). If correct, press LAMP TEST key and go to MAP210-206 and enter extension information. SOURCE display is as shown in Step (14A).

PROGRAM EXTENSION HUNT GROUPS
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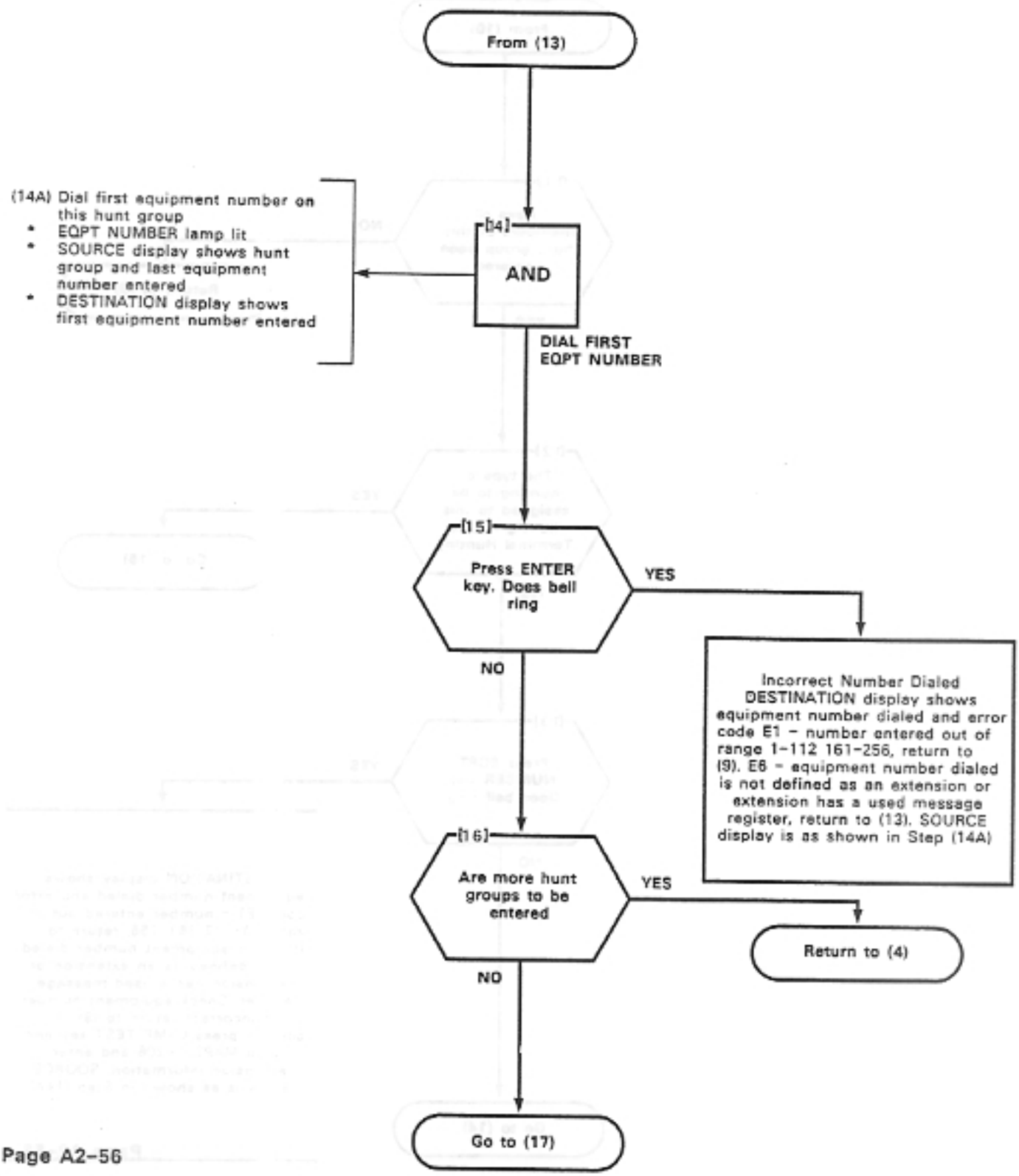

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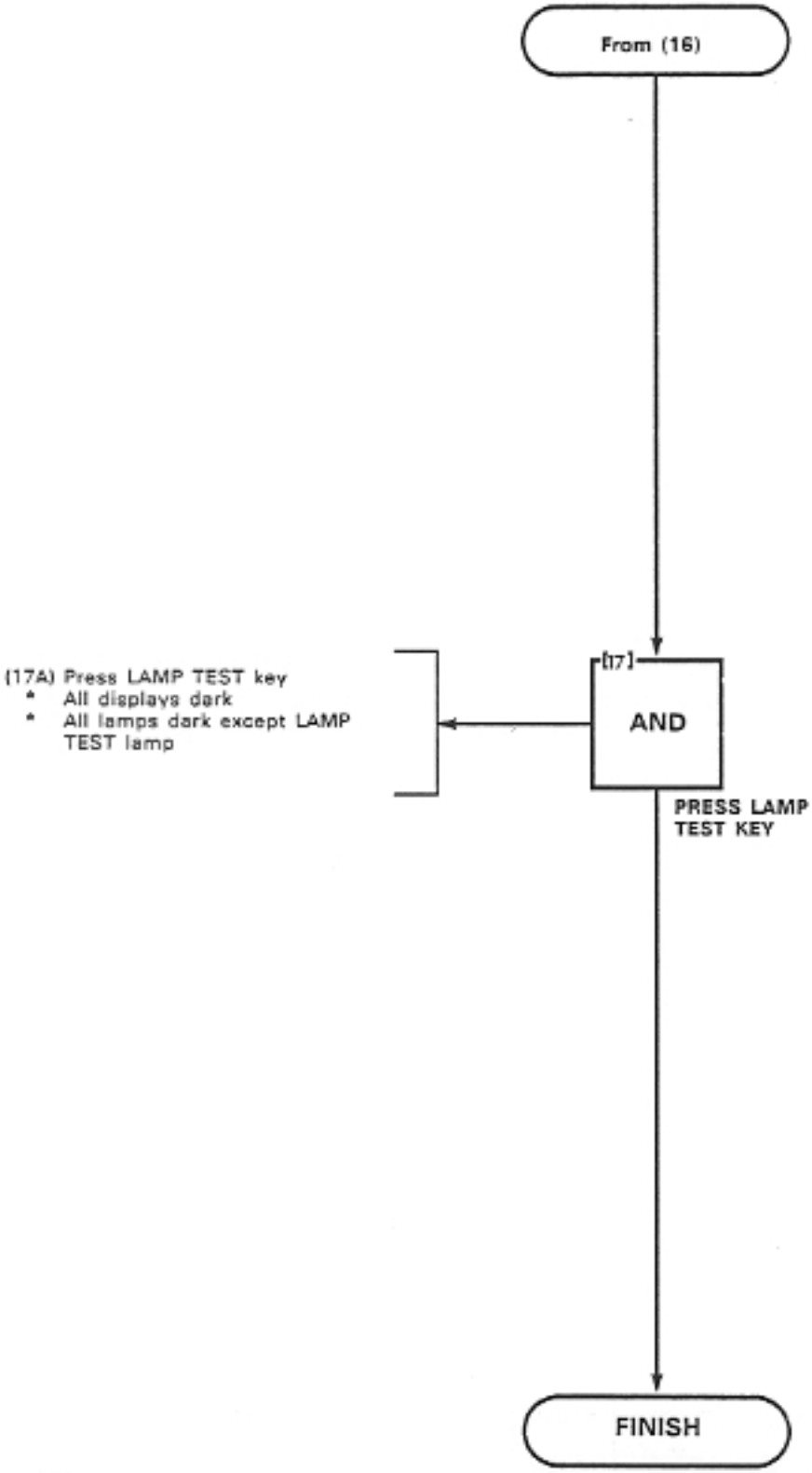


AND

PROGRAM NON-DIAL-IN TRUNKS
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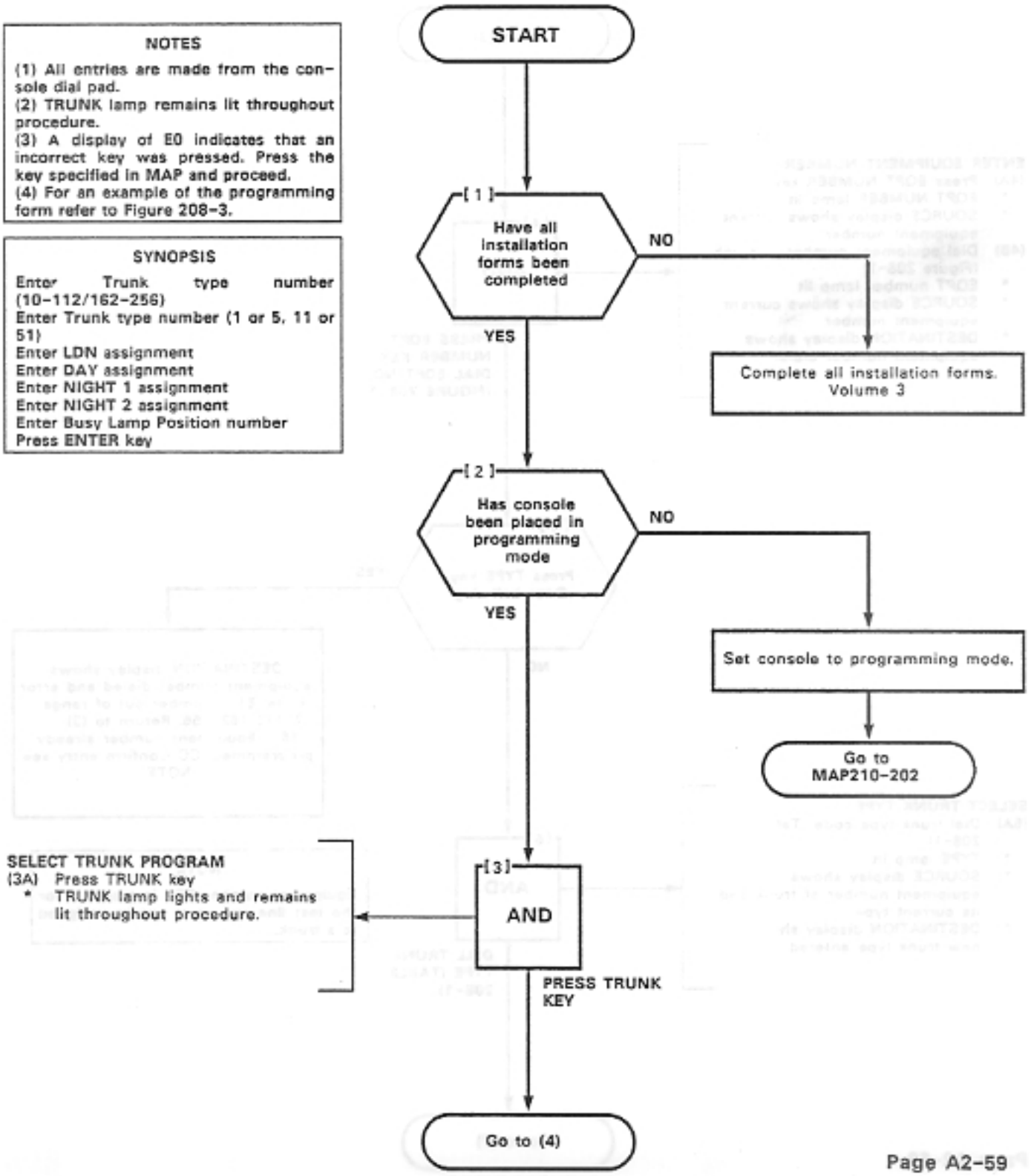
NOTES

(1) All entries are made from the console dial pad.
(2) TRUNK lamp remains lit throughout procedure.
(3) A display of E0 indicates that an incorrect key was pressed. Press the key specified in MAP and proceed.
(4) For an example of the programming form refer to Figure 208-3.

SYNOPSIS

Enter Trunk type number (10-112/162-256)
Enter Trunk type number (1 or 5, 11 or 51)
Enter LDN assignment
Enter DAY assignment
Enter NIGHT 1 assignment
Enter NIGHT 2 assignment
Enter Busy Lamp Position number
Press ENTER key



PROGRAM NON-DIAL-IN TRUNKS
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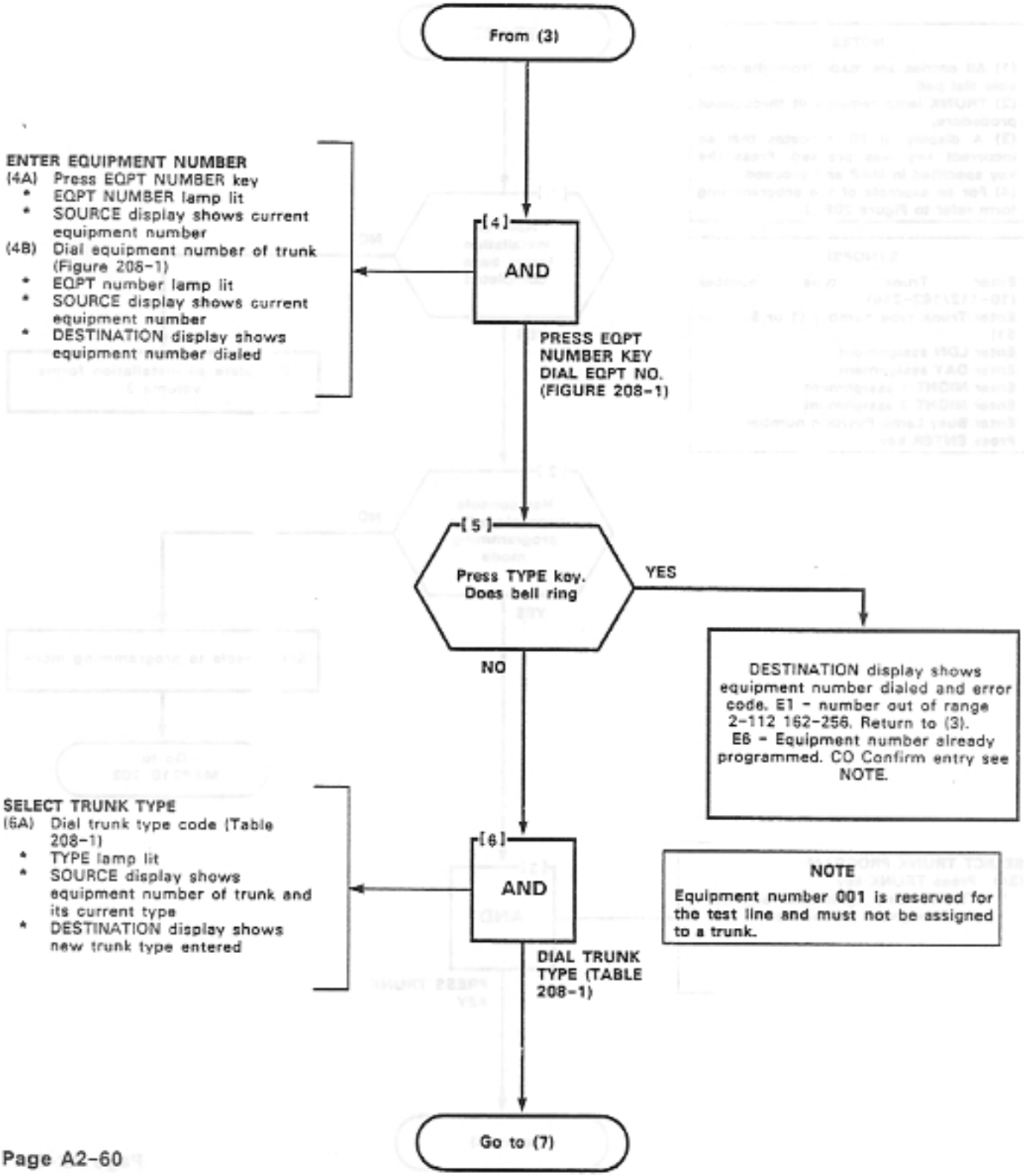

HARDWARE POSITION NUMBER	PLUG 7						PLUG 9						PLUG 11										EXTENSION UNIT NO.	TRUNK UNIT NO. (4 TRUNK)	TRUNK UNIT NO. (2 TRUNK)
	161	169	177	185	193	201	209	217	225	233	241	249											1		
	162	170	178	186	194	202	210	218	226	234	242	250											2	1	1
	163	171	179	187	195	203	211	219	227	235	243	251											3		
	164	172	180	188	196	204	212	220	228	236	244	252											4	2	
	165	173	181	189	197	205	213	221	229	237	245	253											5		
	166	174	182	190	198	206	214	222	230	238	246	254											6	3	2
	167	175	183	191	199	207	215	223	231	239	247	255											7		
	168	176	184	192	200	208	216	224	232	240	248	256											8	4	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	CARD POSITION		
	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	SLOT NUMBER		
	PLUG 8						PLUG 10						PLUG 12												

SHELF 2 (SX-200 ONLY)

HARDWARE POSITION NUMBER	PLUG 1						PLUG 3						PLUG 5										EXTENSION UNIT NO.	TRUNK UNIT NO. (4 TRUNK)	TRUNK UNIT NO. (2 TRUNK)
	001	009	017	025	033	041	049	057	065	073	081	089	097	105	113	CONSOLE CONTROL/RCP CARD	CONSOLE CONTROL CARD	TONE CONTROL					1		
	002	010	018	026	034	042	050	058	066	074	082	090	098	106	114								2	1	1
	003	011	019	027	035	043	051	059	067	075	083	091	099	107	115				RESERVED				3		
	004	012	020	028	036	044	052	060	068	076	084	092	100	108	116				FOR				4	2	
	005	013	021	029	037	045	053	061	069	077	085	093	101	109	117				COMMON				5		
	006	014	022	030	038	046	054	062	070	078	086	094	102	110	118				CONTROLS				6	3	2
	007	015	023	031	039	047	055	063	071	079	087	095	103	111	119								7		
	008	016	024	032	040	048	056	064	072	080	088	096	104	112	120								8	4	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	CARD POSITION		
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	SLOT NUMBER		
	PLUG 2						PLUG 4						PLUG 6												

SHELF 1

NOTES:
1. DUAL AND OR QUAD RECEIVER EQUIPMENT NUMBERS ARE 090, 098, 106, 114, 092, 100, 108 AND 116.
2. QUAD RECEIVER EQUIPMENT NUMBERS ARE 094, 102, 110, 118, 096, 104, 112 AND 120.
3. EQUIPMENT POSITION 001 IS RESERVED FOR THE TEST LINE AND MUST THEREFORE BE EQUIPPED WITH A LINE CARD.
4. TRUNK EQUIPMENT NUMBER IS SAME AS INDIVIDUAL TRUNK ACCESS CODE.
5. SLOT 15 IS RESERVED FOR RECEIVER NO. 1.
6. MAXIMUM NUMBER OF SUPERSET 4s = 64

T642

Figure 208-1 Hardware/Equipment Number

PROGRAM NON-DIAL-IN TRUNKS
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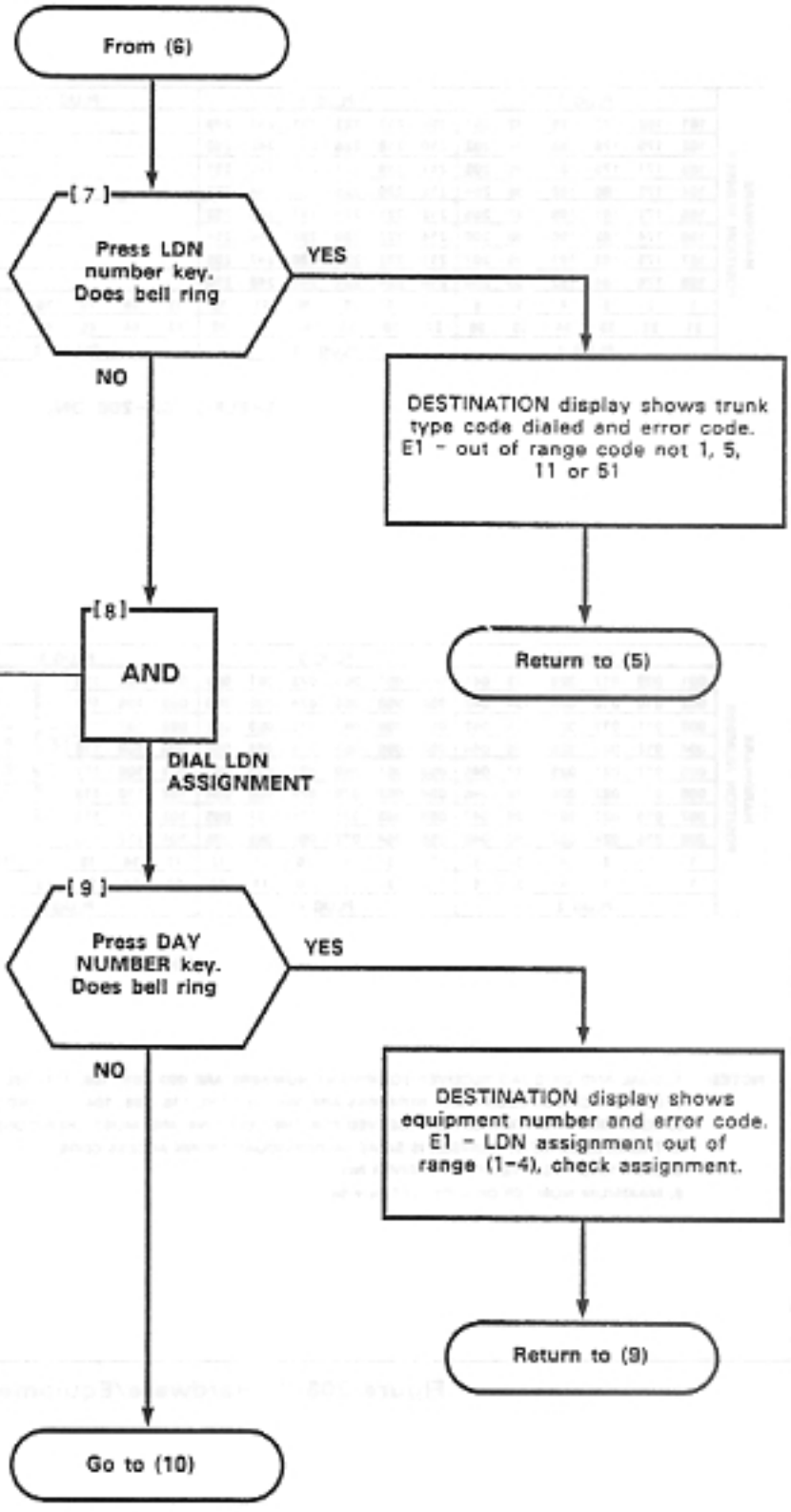
NOTE

The equipment number dialed is either assigned to an extension or does not contain a trunk card.
Check equipment number and card slot. If you wish to remove the previous assignment and assign this equipment position to the trunk press CONFIRM key and return to (3). If you wish to change the equipment entry, return to (3).



ASSIGN TRUNK TO LDN KEY

(8A) Dial LDN key number (1-4) to be assigned to trunk
- LDN lamp lit
- SOURCE display shows equipment number and current LDN key assignment
- DESTINATION display shows new LDN assignment

TABLE 208-1

Code	Type
1	Both way CO trunk VNL
5	Non Dial-In Trunk VNL
11	Both way CO Trunk Non VNL
51	Non Dial-In Tie Trunk Non VNL

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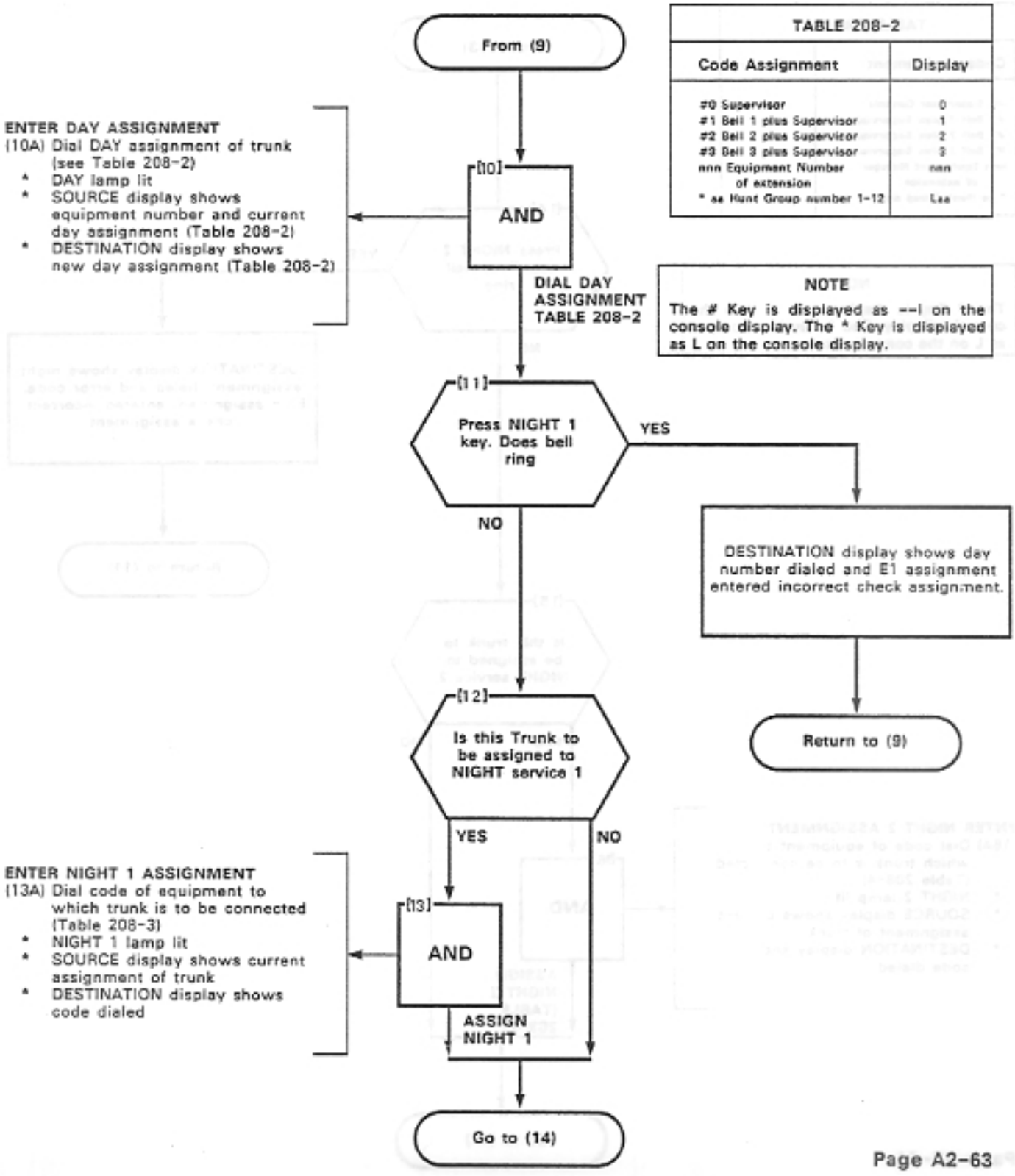

TABLE 208-2	
Code Assignment	Display
#0 Supervisor	0
#1 Bell 1 plus Supervisor	1
#2 Bell 2 plus Supervisor	2
#3 Bell 3 plus Supervisor	3
nnn Equipment Number of extension	nnn
* as Hunt Group number 1-12	Lxx

NOTE

The # Key is displayed as --| on the console display. The * Key is displayed as L on the console display.

PROGRAM NON-DIAL-IN TRUNKS
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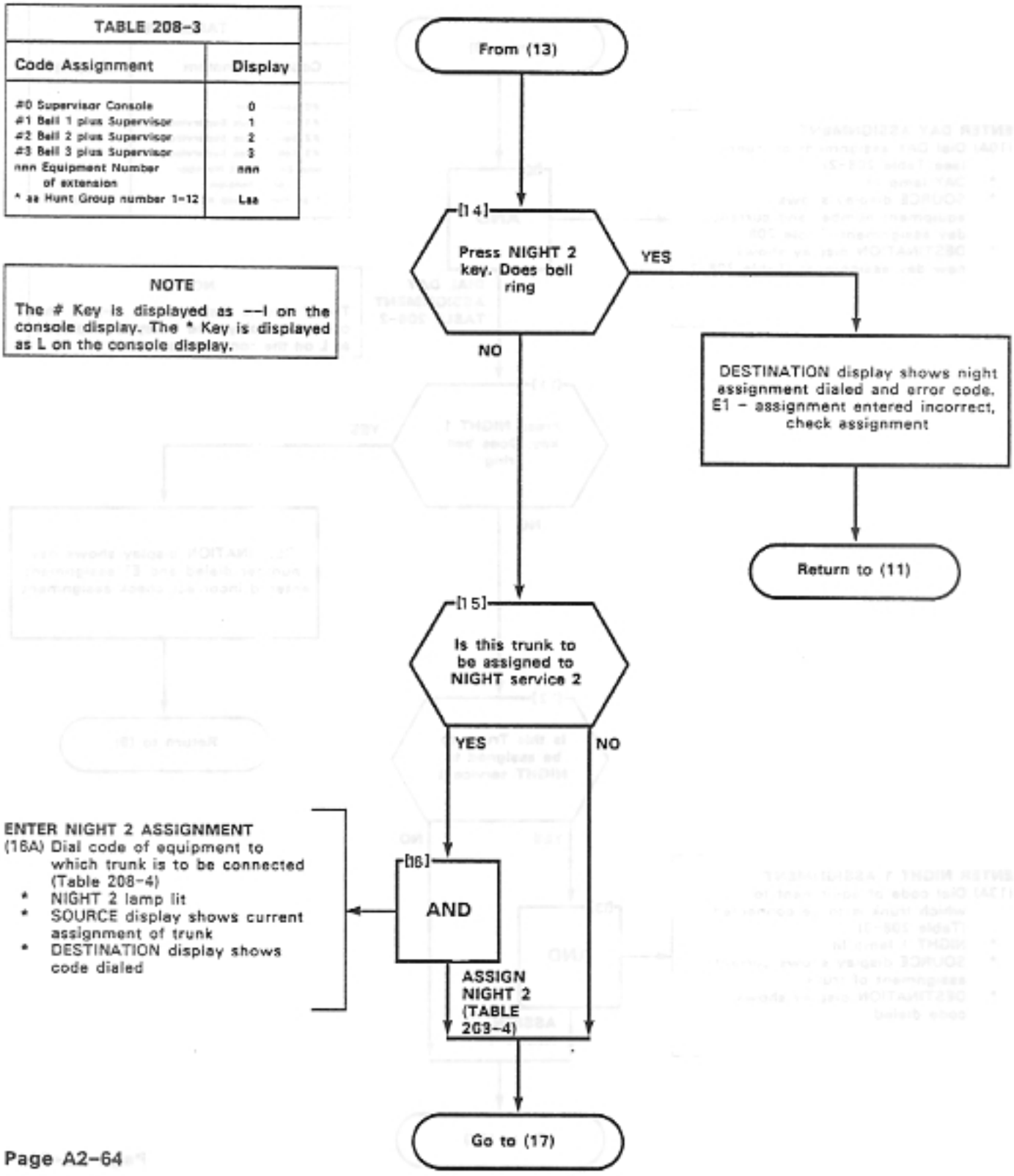
TABLE 208-3	
Code Assignment	Display
#0 Supervisor Console	0
#1 Bell 1 plus Supervisor	1
#2 Bell 2 plus Supervisor	2
#3 Bell 3 plus Supervisor	3
nnn Equipment Number of extension	nnn
* as Hunt Group number 1-12	Lxx

NOTE

The # Key is displayed as —I on the console display. The * Key is displayed as L on the console display.



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NOTE

The # Key is displayed as --| on the console display. The * Key is displayed as L on the console display.

From (16)

[17] Press BUSY LAMP NUMBER key. Does bell ring

YES

DESTINATION display shows Night assignment dialed and E1 - assignment entered incorrect, check assignment.

Return to (14)

NO

[18] Is this trunk to be assigned a busy lamp position

YES

NO

ASSIGN TRUNK TO BUSY LAMP FIELD

(19A) Dial busy lamp position assigned to the trunk (Figure 208-2)

- * BUSY LAMP number lamp lit
- * SOURCE display shows equipment number of trunk and current busy lamp assignment
- * DESTINATION display shows new busy lamp assignment

[19] AND

ASSIGN BUSY LAMP (FIGURE 208-2)

Go to (20)

TABLE 208-4

Code Assignment	Display
#0 Supervisor Console	0
#1 Bell 1 plus Supervisor	1
#2 Bell 2 plus Supervisor	2
#3 Bell 3 plus Supervisor	3
nnn Equipment Number of extension	nnn
* as Hunt Group number 1-12	Lxx

PROGRAM NON-DIAL-IN TRUNKS
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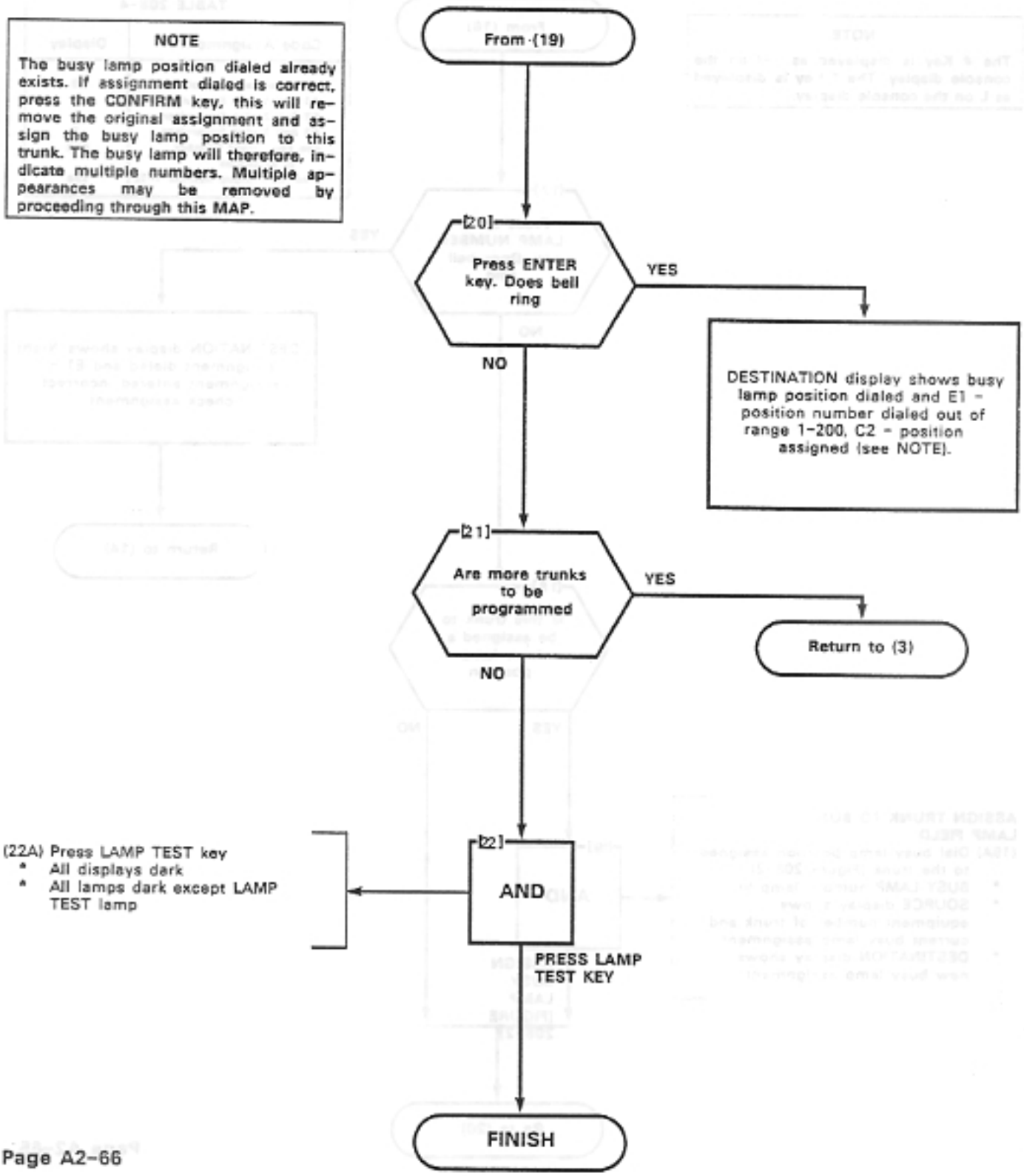
NOTE

The busy lamp position dialed already exists. If assignment dialed is correct, press the CONFIRM key, this will remove the original assignment and assign the busy lamp position to this trunk. The busy lamp will therefore, indicate multiple numbers. Multiple appearances may be removed by proceeding through this MAP.



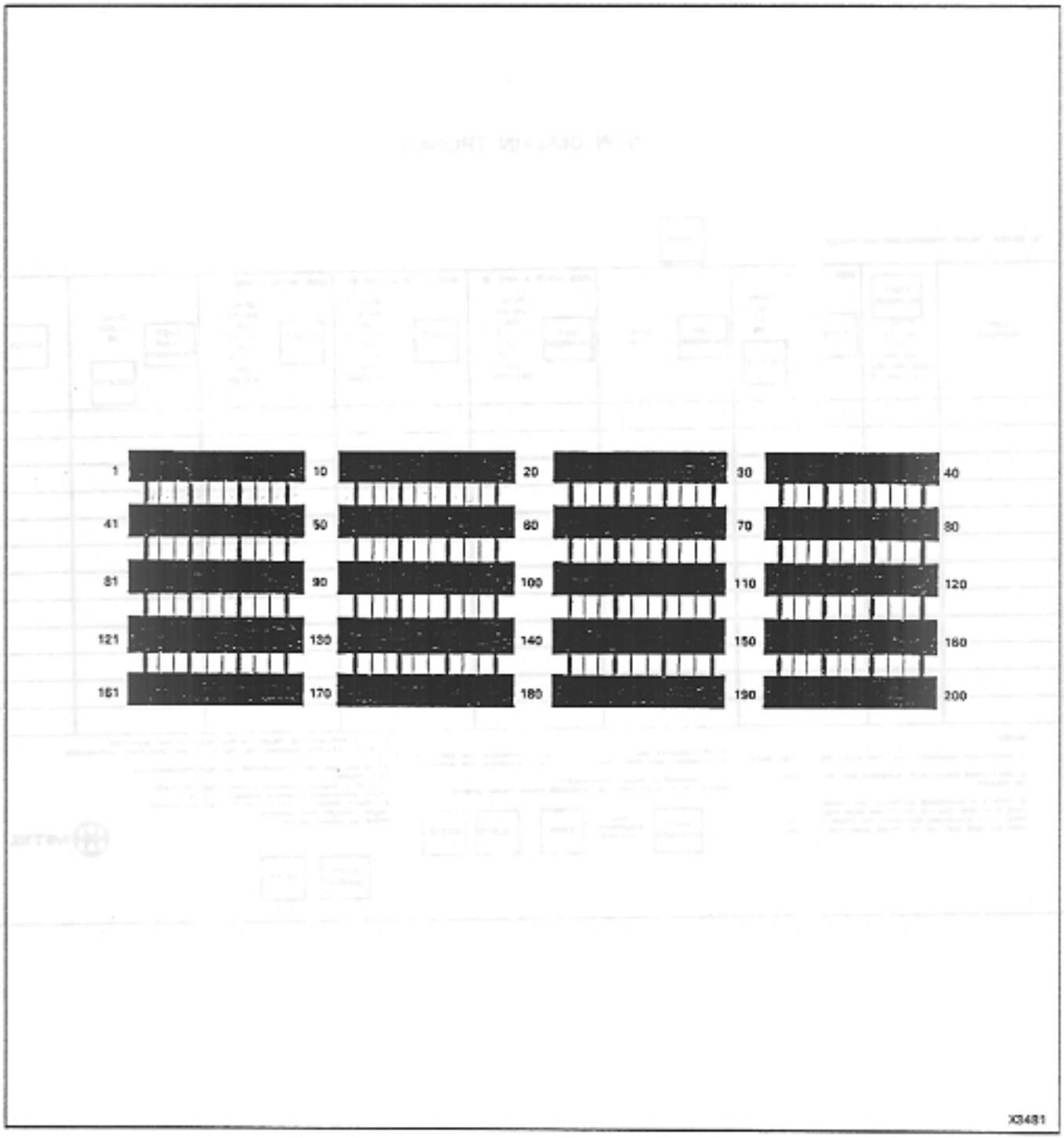


Figure 208-2 Busy Lamp Position Numbering

NON DIAL-IN TRUNKS

TO ENTER TRUNK PROGRAMMING PRESS [TRUNK]

LDN NUMBER	[EQPT NUMBER] DIAL 10-112 OR 162-256 (SEE NOTES 1,2 AND 7)	(SEE NOTE 3) [TYPE] DIAL 1, 5, 11 51 OR [DELETE]	[LDN NUMBER] DIAL 1-4	(SEE NOTE 4 AND 8) [DAY NUMBER] DIAL #0-#3 OR #1-#12 OR 1-112 OR 161-256	(SEE NOTE 4 AND 8) [NIGHT 1] DIAL #0-#3 OR #1-#12 OR 1-112 OR 161-256	(SEE NOTE 4 AND 8) [NIGHT 2] DIAL #0-#3 OR #1-#12 OR 1-112 OR 161-256	[BUSY LAMP NUMBER] DIAL 1-256 OR [DELETE]	[ENTER]

NOTES:

1. EQUIPMENT NUMBERS 162-256 APPLY TO SX-200 ONLY.
2. ONLY EVEN EQUIPMENT NUMBERS MAY BE ASSIGNED TO TRUNKS.
3. TYPE 1 = STANDARD BOTHWAY CO TRUNK VNL
   TYPE 5 = NON DIAL-IN TIE TRUNK (NON CO) VNL
   TYPE 11 = STANDARD BOTHWAY CO TRUNK NON VNL
   TYPE 51 NON DIAL-IN TIE TRUNK (NON-CO) NON VNL
4. #0 - CONSOLE ONLY
   #1 - CONSOLE AND NIGHT BELL 1
   #2 - CONSOLE AND NIGHT BELL 2
   #3 - CONSOLE AND NIGHT BELL 3
5. TO REMOVE A TRUNK ASSIGNMENT:
   NOTE: TRUNK MUST FIRST BE REMOVED FROM TRUNK GROUP.

[EQPT NUMBER] DIAL EQUIPMENT NUMBER [TYPE] [DELETE] [ENTER]

#1-#12 ASSIGNS THE TRUNK TO THE HUNT GROUP SELECTED
1-112, 161-256 ASSIGNS THE TRUNK TO THE SPECIFIED EXTENSION
6. TO SEE THE NEXT EQUIPMENT NUMBER PROGRAMMED AS A TRUNK:
7. SLOT 1 SHOULD CONTAIN A LINE CARD, SO FIRST TRUNK EQUIPMENT NUMBER SHOULD BE 2 (0)
8. TRUNK GROUP 12 HAS PRIORITY OVER ALL OTHER TRUNK GROUPS FOR SERVICE FROM AN AGENT GROUP.

[EQPT NUMBER] [NEXT]

MITEL

NON DIAL-IN TRUNKS

TO ENTER TRUNK PROGRAMMING PRESS [TRUNK]

LDN NUMBER	[EQPT NUMBER] DIAL 10-112 OR 161-256 (SEE NOTES 1,2 AND 7)	(SEE NOTE 2) [TYPE] DIAL 1, 5, 11 51 OR [DELETE]	[LDN NUMBER] DIAL 1-4	(SEE NOTE 4 AND 8) [DAY NUMBER] DIAL #0-#3 OR +1-+12 OR 1-112 OR 161-256	(SEE NOTE 4 AND 8) [NIGHT 1] DIAL #0-#3 OR +11-+12 OR 1-112 OR 161-256	(SEE NOTE 4 AND 8) [NIGHT 2] DIAL #0-#3 OR +1-+12 OR 1-112 OR 161-256	[BUSY LAMP NUMBER] DIAL 1-200 OR [DELETE]	[ENTER]

NOTES

1. EQUIPMENT NUMBERS 161-256 APPLY TO SX-200 ONLY.
2. ONLY EVEN EQUIPMENT NUMBERS MAY BE ASSIGNED TO TRUNKS.
3. TYPE 1 = STANDARD BOTHWAY CO TRUNK VNL
   TYPE 5 = NONE DIAL-IN TIE TRUNK (NON CO) VNL
   TYPE 11 = STANDARD BOTHWAY CO TRUNK NON VNL
   TYPE 51 NON DIAL-IN TIE TRUNK (NON-CO) NON VNL
4. #0 = CONSOLE ONLY
   #1 = CONSOLE AND NIGHT BELL 1
   #2 = CONSOLE AND NIGHT BELL 2
   #3 = CONSOLE AND NIGHT BELL 3
5. TO REMOVE A TRUNK ASSIGNMENT:
   (NOTE) TRUNK MUST FIRST BE REMOVED FROM TRUNK GROUP

[EQPT NUMBER] DIAL EQUIPMENT NUMBER [TYPE] [DELETE] [ENTER]

+1-+12 ASSIGNS THE TRUNK TO THE HUNT GROUP SELECTED
1-112, 161-256 ASSIGNS THE TRUNK TO THE SPECIFIED EXTENSION.
6. TO SEE THE NEXT EQUIPMENT NUMBER PROGRAMMED
   AS A TRUNK:
7. SLOT 1 SHOULD CONTAIN A LINE CARD, SO FIRST TRUNK EQUIPMENT NUMBER SHOULD BE 010
8. TRUNK GROUP 12 HAS PRIORITY OVER ALL OTHER TRUNK GROUPS FOR SERVICE FROM AN AGENT GROUP.

[EQPT NUMBER] [NEXT]

MITEL

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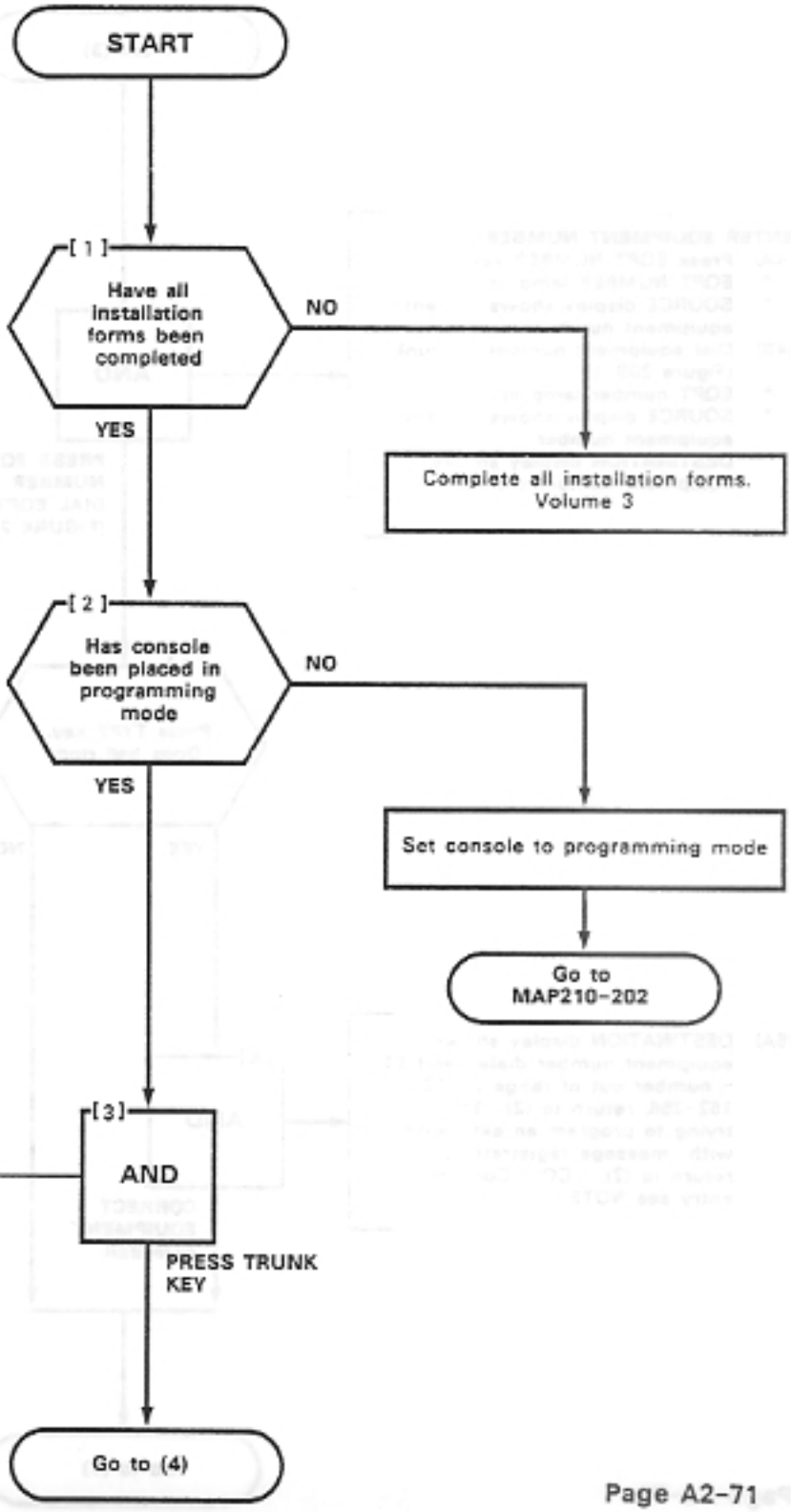
NOTES

(1) All entries are made from the console dial pad
(2) TRUNK lamp remains lit throughout procedure
(3) A display of EO indicates that an incorrect key was pressed. Press the key specified in MAP and proceed.
(4) This flow chart applies to E&M, LOOP and DX Tie Trunks
(5) Refer to Figure 209-3 for an example of the form.

SYNOPSIS

Press TRUNK key.
Enter Equipment number (10-161/162-256)
Enter Trunk type number 2 or 4, 21 or 41
Enter Trunk COS
Enter Toll-Allow/Deny code
Enter Busy Lamp Position number
Press ENTER



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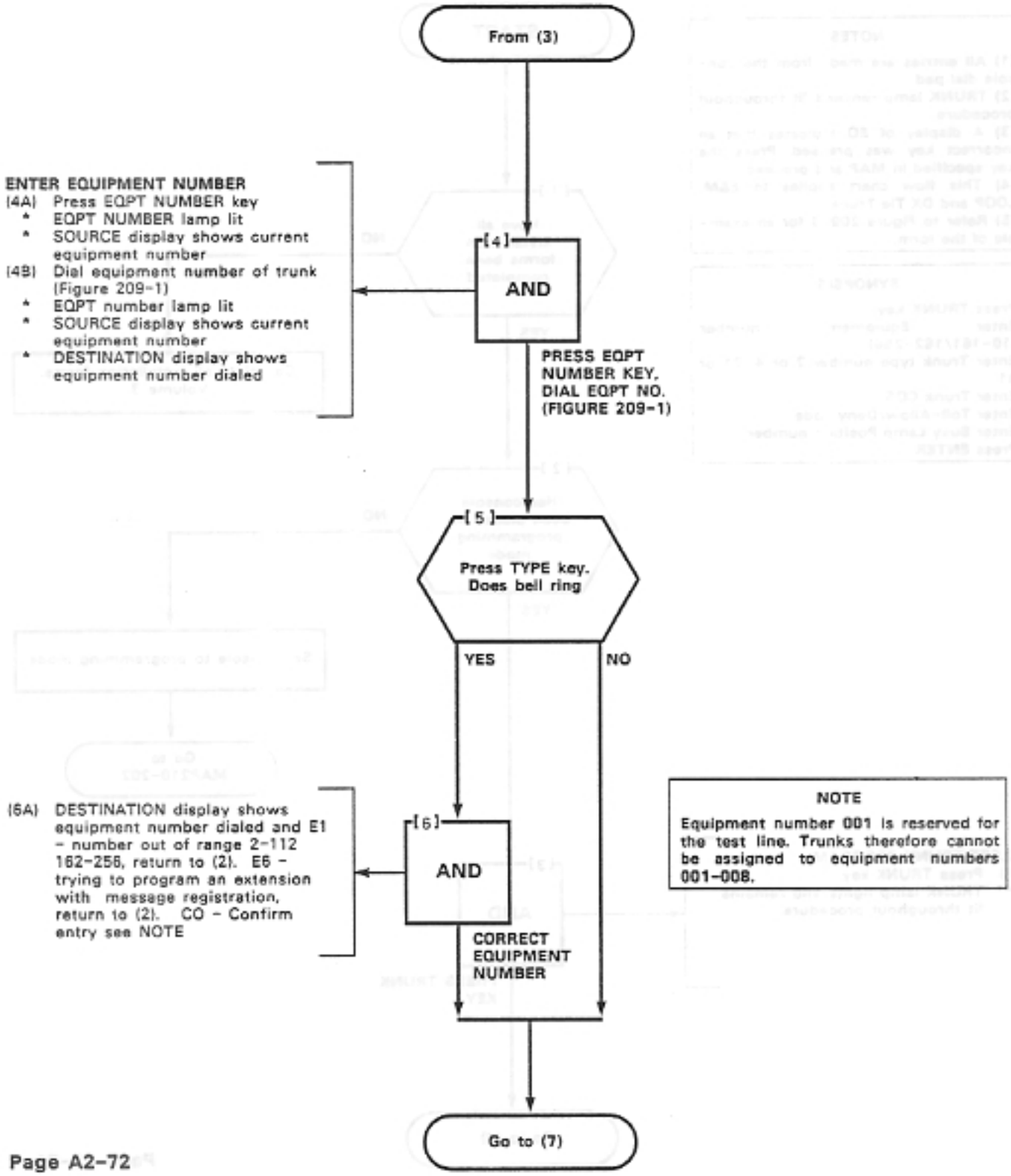

HARDWARE POSITION NUMBER	PLUG 7						PLUG 9						PLUG 11										EXTENSION UNIT NO.	TRUNK UNIT NO. (4 TRUNK)	TRUNK UNIT NO. (2 TRUNK)
	161	169	177	185	193	201	209	217	225	233	241	249											1		
	162	170	178	186	194	202	210	218	226	234	242	250											2	1	1
	163	171	179	187	195	203	211	219	227	235	243	251											3		
	164	172	180	188	196	204	212	220	228	236	244	252											4	2	
	165	173	181	189	197	205	213	221	229	237	245	253											5		
	166	174	182	190	198	206	214	222	230	238	246	254											6	3	2
	167	175	183	191	199	207	215	223	231	239	247	255											7		
	168	176	184	192	200	208	216	224	232	240	248	256											8	4	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	CARD POSITION		
	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	SLOT NUMBER		
	PLUG 8						PLUG 10						PLUG 12												

SHELF 2 (SX-200 ONLY)

HARDWARE POSITION NUMBER	PLUG 1						PLUG 3						PLUG 5										EXTENSION UNIT NO.	TRUNK UNIT NO. (4 TRUNK)	TRUNK UNIT NO. (2 TRUNK)
	001	009	017	025	033	041	049	057	065	073	081	089	097	105	113	CONSOLE CONTROL/TCP CARD	CONSOLE CONTROL CARD	TONE CONTROL					1		
	002	010	018	026	034	042	050	058	066	074	082	090	098	106	114								2	1	1
	003	011	019	027	035	043	051	059	067	075	083	091	099	107	115				RESERVED				3		
	004	012	020	028	036	044	052	060	068	076	084	092	100	108	116				FOR				4	2	
	005	013	021	029	037	045	053	061	069	077	085	093	101	109	117				COMMON				5		
	006	014	022	030	038	046	054	062	070	078	086	094	102	110	118				CONTROLS				6	3	2
	007	015	023	031	039	047	055	063	071	079	087	095	103	111	119								7		
	008	016	024	032	040	048	056	064	072	080	088	096	104	112	120								8	4	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	CARD POSITION		
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	SLOT NUMBER		
	PLUG 2						PLUG 4						PLUG 6												

SHELF 1

NOTES:
1. DUAL AND OR QUAD RECEIVER EQUIPMENT NUMBERS ARE 090, 098, 106, 114, 092, 100, 108 AND 116.
2. QUAD RECEIVER EQUIPMENT NUMBERS ARE 094, 102, 110, 118, 096, 104, 112 AND 120.
3. EQUIPMENT POSITION 001 IS RESERVED FOR THE TEST LINE AND MUST THEREFORE BE EQUIPPED WITH A LINE CARD.
4. TRUNK EQUIPMENT NUMBER IS SAME AS INDIVIDUAL TRUNK ACCESS CODE.
5. SLOT 15 IS RESERVED FOR RECEIVER NO. 1.
6. MAXIMUM NUMBER OF SUPERSET 4s = 64

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Figure 209-1 Hardware/Equipment Number

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NOTE

The equipment number dialed is either assigned to an extension or does not contain a trunk card.
Check equipment number and card slot. If you wish to remove the previous assignment and assign this equipment position to the trunk press CONFIRM button so the present entry will be eliminated, and return to (5). IF you wish to change the equipment entry return to (4).

From (6)

[7]

Is this trunk to be removed from the system

NO → Go to (9)

YES

TABLE 209-1

CODE	TYPE
2	Direct Inward System Access VNL
4	Dial-In Trunk VNL
21	Direct Inward System Access Non VNL
41	Dial-In Trunk VNL

(8A) Press DELETE key
* DELETE lamp lit
* SOURCE display shows equipment number and its current class
* DESTINATION display shows 0

[8] AND

REMOVE TRUNK DATA

SELECT TRUNK TYPE
(9A) Dial trunk code (Table 209-1)
* TYPE lamp lit
* SOURCE display shows the equipment number of the trunk and its current type
* DESTINATION display shows trunk type entered

[9] AND

CAUTION

Trunks MUST be removed from trunk groups before being removed from the system. Trunks cannot be deleted or changed while they are in use.

DIAL TRUNK TYPE CODE. (TABLE 209-1)

Go to (10)

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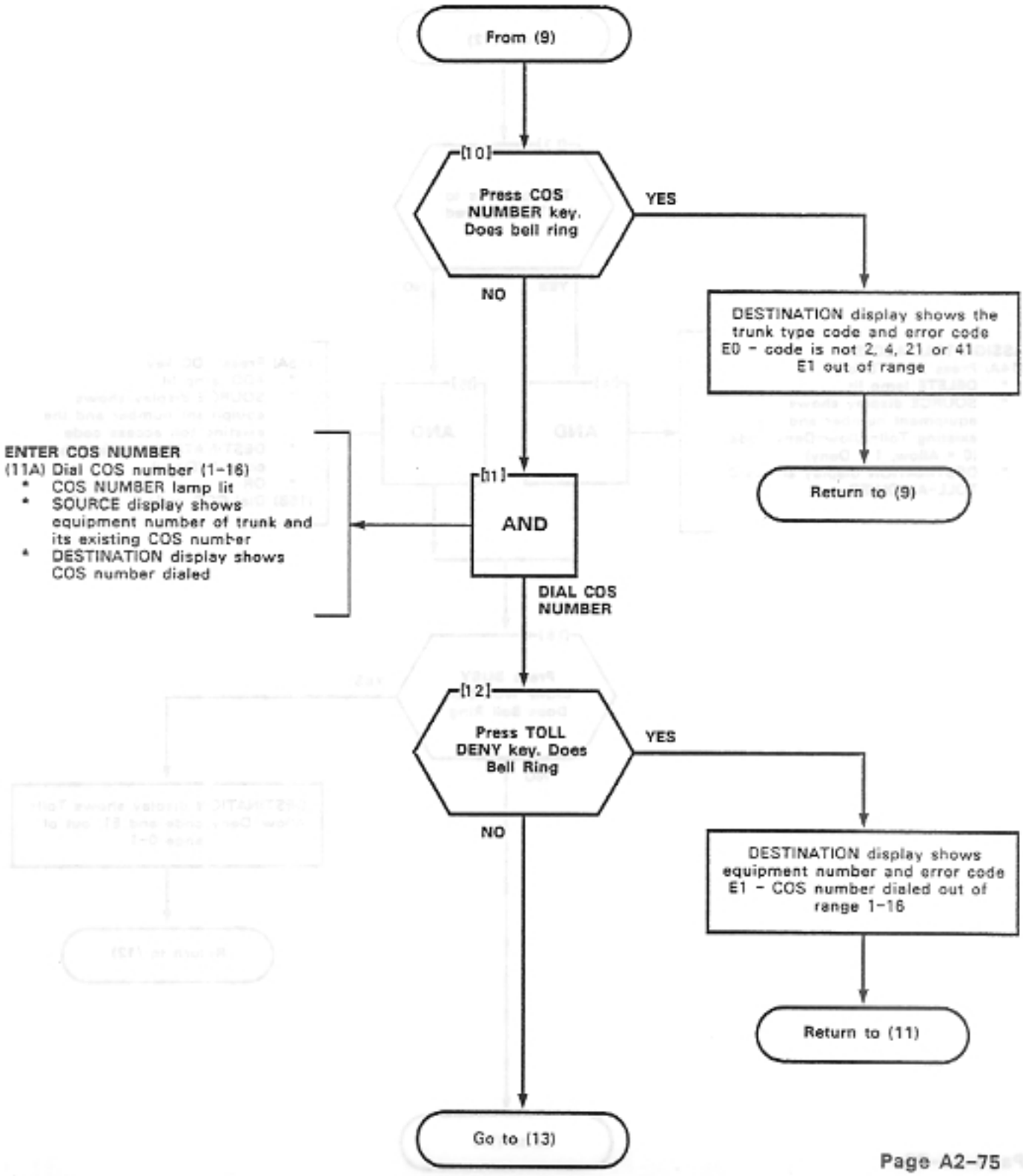

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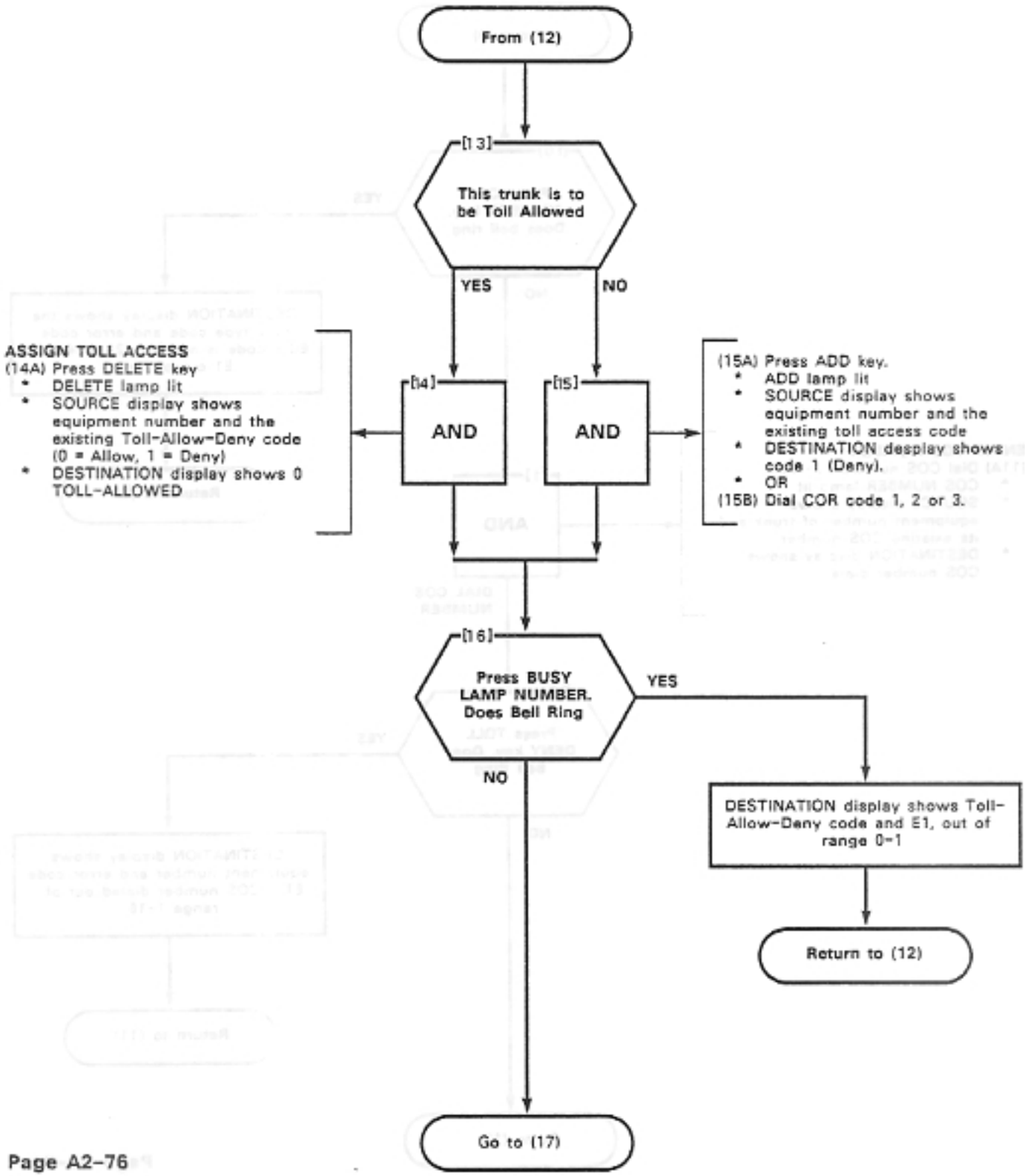

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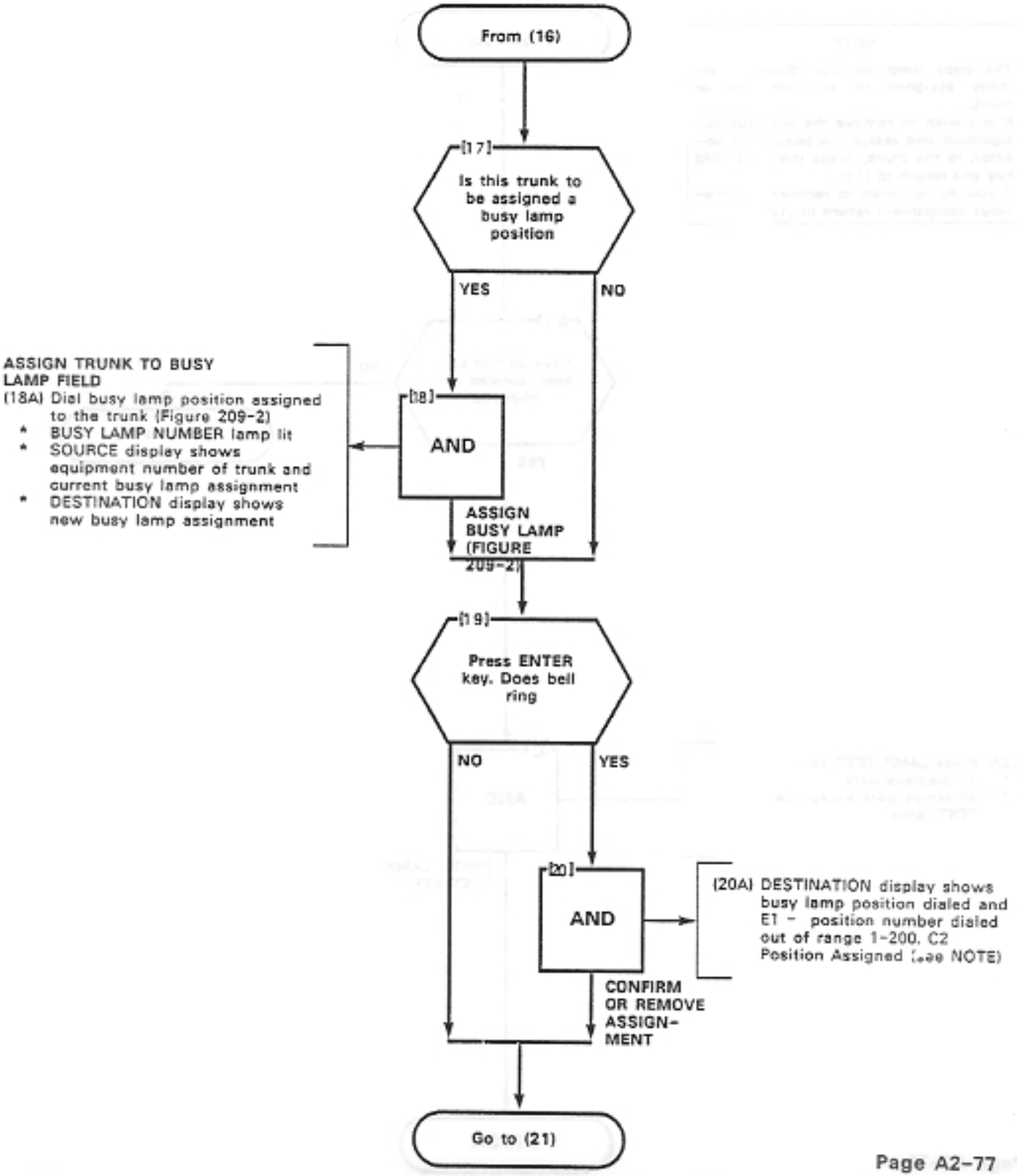

PROGRAM DIAL-IN TRUNKS
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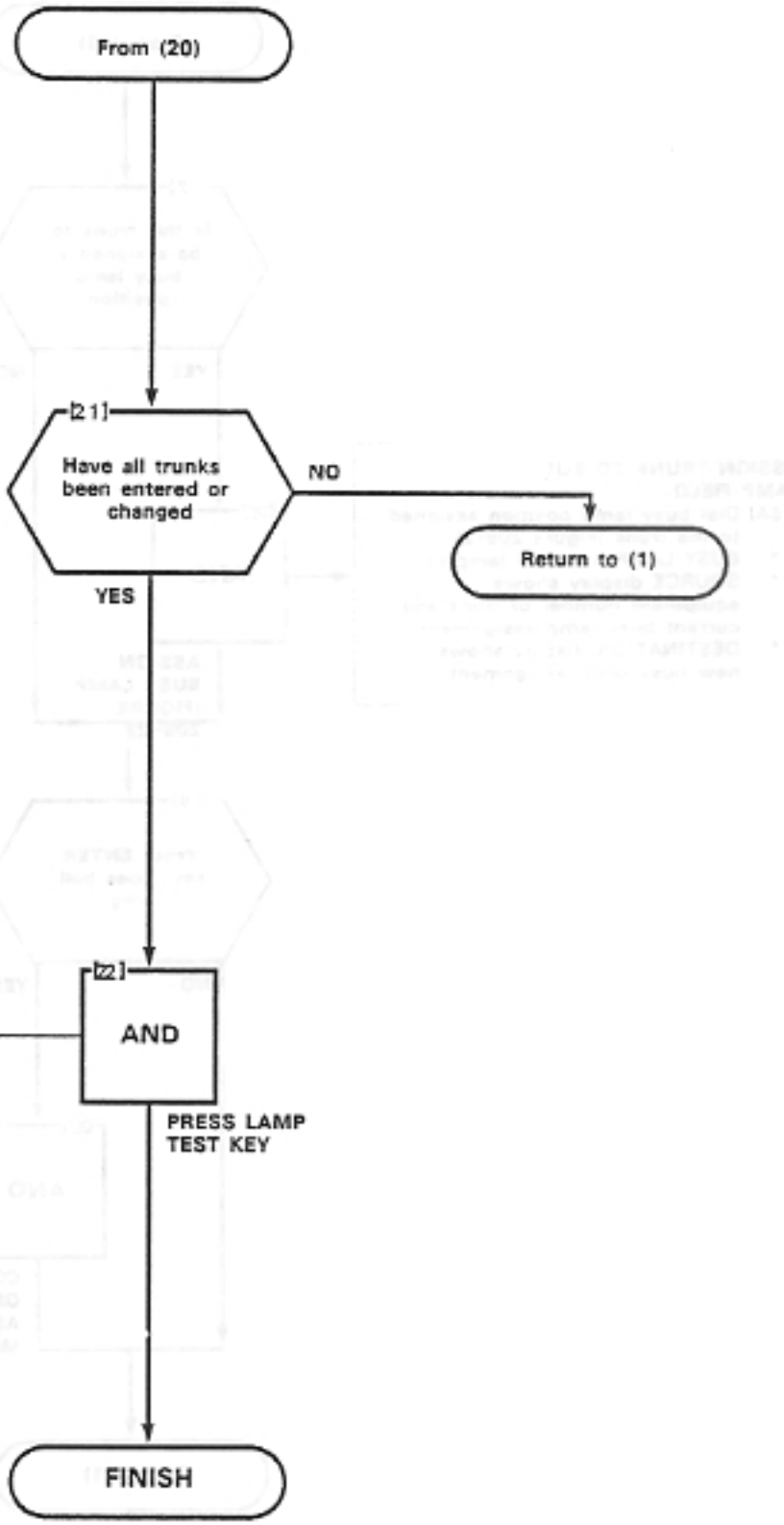
NOTE

The busy lamp position dialed is already assigned to an extension or trunk.
If you wish to remove the previous assignment and assign the busy lamp position to the trunk, press the CONFIRM key and return to (19).
If you do not wish to remove the previous assignment return to (16).



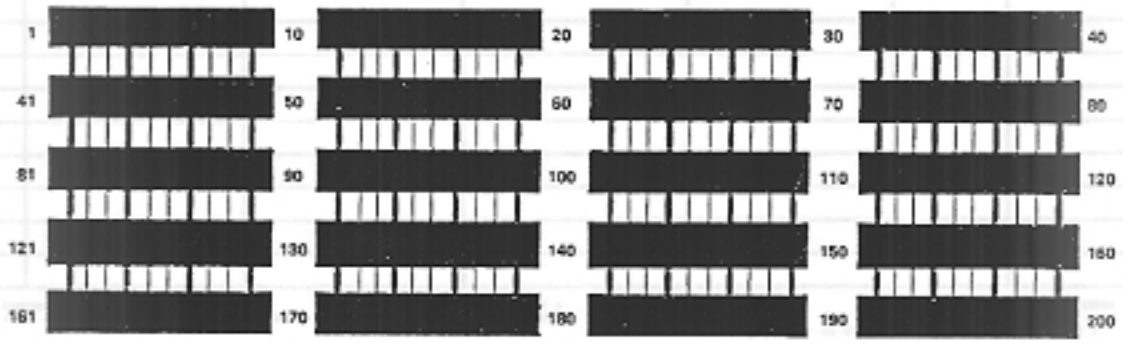


Figure 209-2 Busy Lamp Position Numbering

DIAL-IN TRUNKS

TO ENTER TRUNK PROGRAMMING PRESS [TRUNK]

LOG NUMBER	[EQPT NUMBER] DIAL 10-113 OR 193-256 SEE NOTES 1,3 AND 7	SEE NOTE 3 [TYPE] DIAL 3,4,21 OR 41 OR [DELETE]	[COR NUMBER] DIAL 1-16	[TOLL DENY] TOLL ALLOW [ADD] OR DIAL COR CODE i.e. OR 3 OR [DELETE] NOTE 6	[BUSY LAMP NUMBER] DIAL 1 - 200 OR [DELETE]	[ENTER]

NOTES

1. EQUIPMENT NUMBERS 193-256 APPLIES TO SX-200 ONLY
2. EVEN EQUIPMENT NUMBERS ONLY MAY BE ASSIGNED TO TRUNKS

TYPE 3 - *PRECI INWARD SYSTEM ACCESS VNL
TYP 4 - DIAL IN THE TRUNK (NON COS VNL
TYPE 21 - DIRECT INWARD SYSTEM ACCESS NON VNL
TYPE 41 - DIAL IN THE TRUNK (NON COS NON VNL

6 COR 1-3 APPLIES ONLY IF MULTI DIGIT TOLL CONTROL IS USED
7 SLOT 1 SHOULD CONTAIN A LINE CARD SO FIRST TRUNK EQUIPMENT NUMBER SHOULD BE 010

4. TO REMOVE A TRUNK ASSIGNMENT NOTE TRUNK MUST FIRST BE REMOVED FROM TRUNK GROUP

[EQPT NUMBER] DIAL EQUIPMENT NUMBERS [TYPE] [DELETE]

5. TO SEE THE NEXT EQUIPMENT NUMBER ASSIGNED AS A TRUNK

[EQPT NUMBER] [NEXT]

MITEL

DIAL-IN TRUNKS

TO ENTER TRUNK PROGRAMMING PRESS [TRUNK]

LDN NUMBER	EQPT NUMBER DIAL 10-112 OR 162-256 (SEE NOTES 1,3 AND 7)	(SEE NOTE 3) TYPE DIAL 2,4,21 OR 41 OR DELETE	COS NUMBER DIAL 1-16	TOLL DENY TOLL DENY ADD OR DIAL COR CODE 1,2, OR 3 OR DELETE TOLL ALLOW NOTE 6	BUSY LAMP NUMBER DIAL 1 - 200 OR DELETE	ENTER

NOTES

1. EQUIPMENT NUMBERS 162-256 APPLIES TO SX-200 ONLY

2. EVEN EQUIPMENT NUMBERS ONLY MAY BE ASSIGNED TO TRUNKS

TYPE 2 - DIRECT INWARD SYSTEM ACCESS VNL
TYP 4 - DIAL IN TIE TRUNK (NO 4 COS VNL
TYPE 21 - DIRECT INWARD SYSTEM ACCESS NOR VNL
TYPE 41 - DIAL IN TIE TRUNK (NON COS NOR VNL

6. COR 1-3 APPLIES ONLY IF MULTI DIGIT TOLL CONTROL IS USED
7. SLOT 1 SHOULD CONTAIN A LINE CARD GO FIRST
TRUNK EQUIPMENT NUMBER SHOULD BE 010

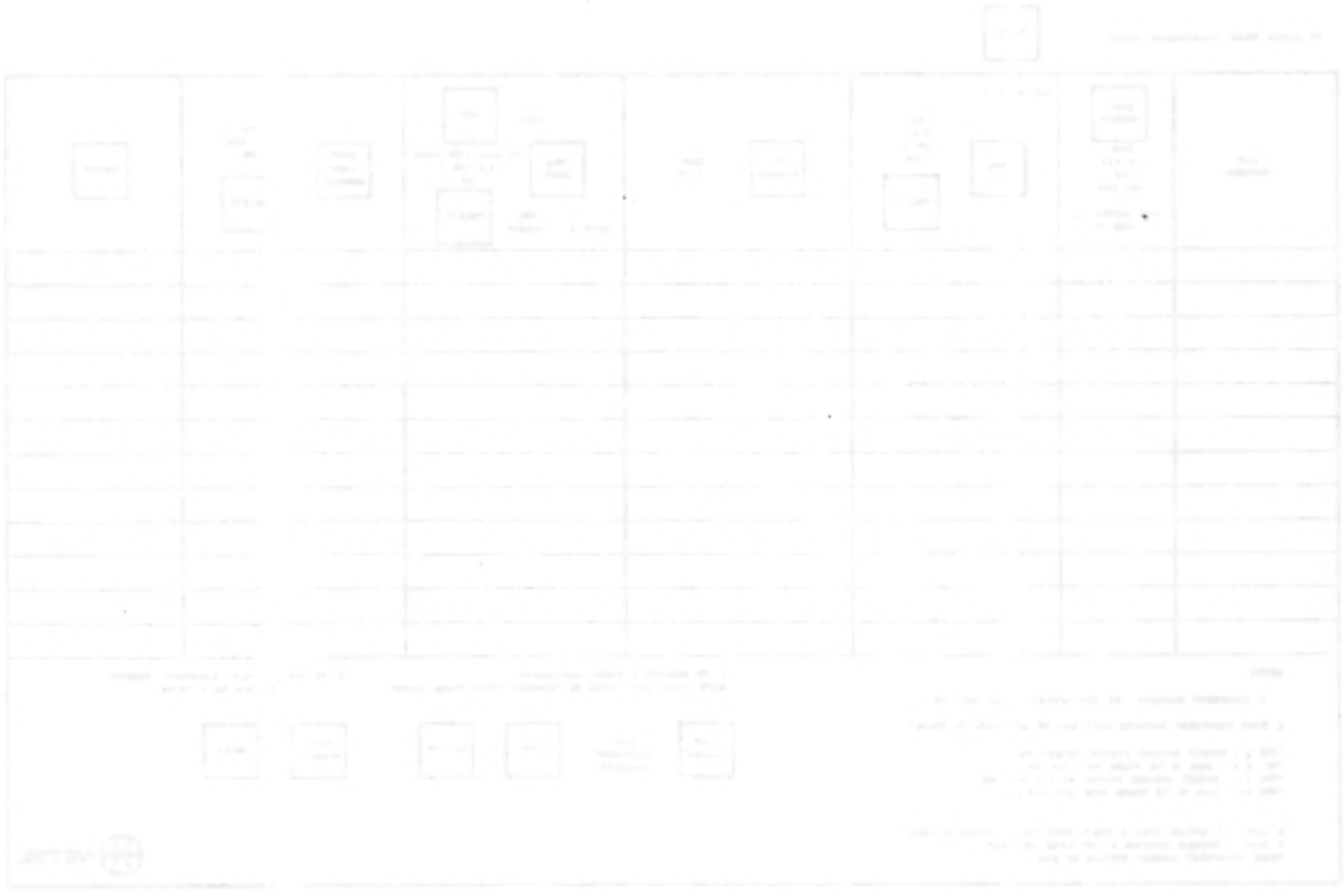
4. TO REMOVE A TRUNK ASSIGNMENT
NOTE TRUNK MUST FIRST BE REMOVED FROM TRUNK GROUP

[EQPT NUMBER] DIAL EQUIPMENT NUMBERS [TYPE] [DELETE]

5. TO SEE THE NEXT EQUIPMENT NUMBER ASSIGNED AS A TRUNK

[EQPT NUMBER] [NEXT]

MITEL



PROGRAM DID TRUNKS
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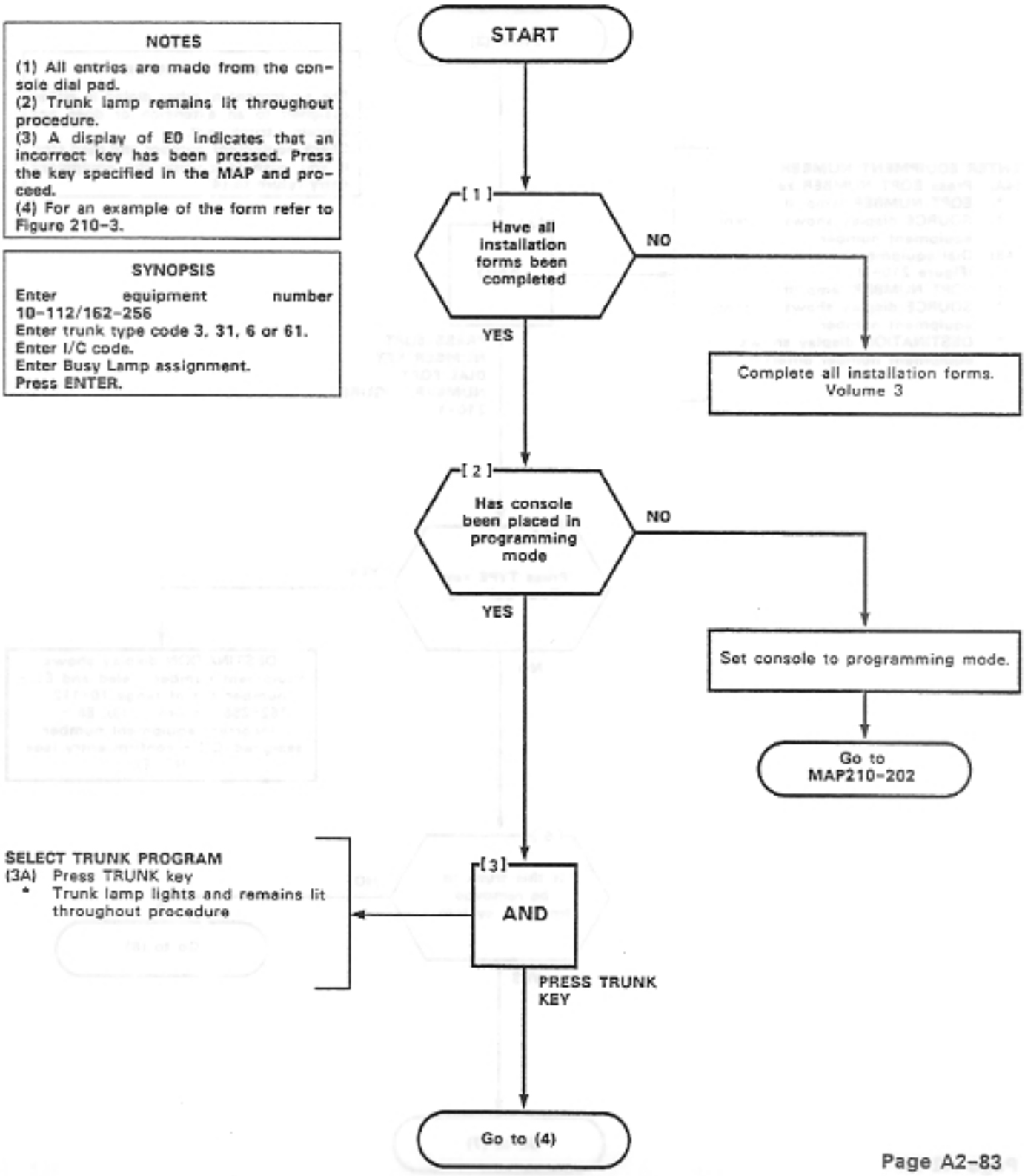
NOTES

(1) All entries are made from the console dial pad.
(2) Trunk lamp remains lit throughout procedure.
(3) A display of E0 indicates that an incorrect key has been pressed. Press the key specified in the MAP and proceed.
(4) For an example of the form refer to Figure 210-3.

SYNOPSIS

Enter equipment number 10-112/162-256
Enter trunk type code 3, 31, 6 or 61.
Enter I/C code.
Enter Busy Lamp assignment.
Press ENTER.



PROGRAM DID TRUNKS
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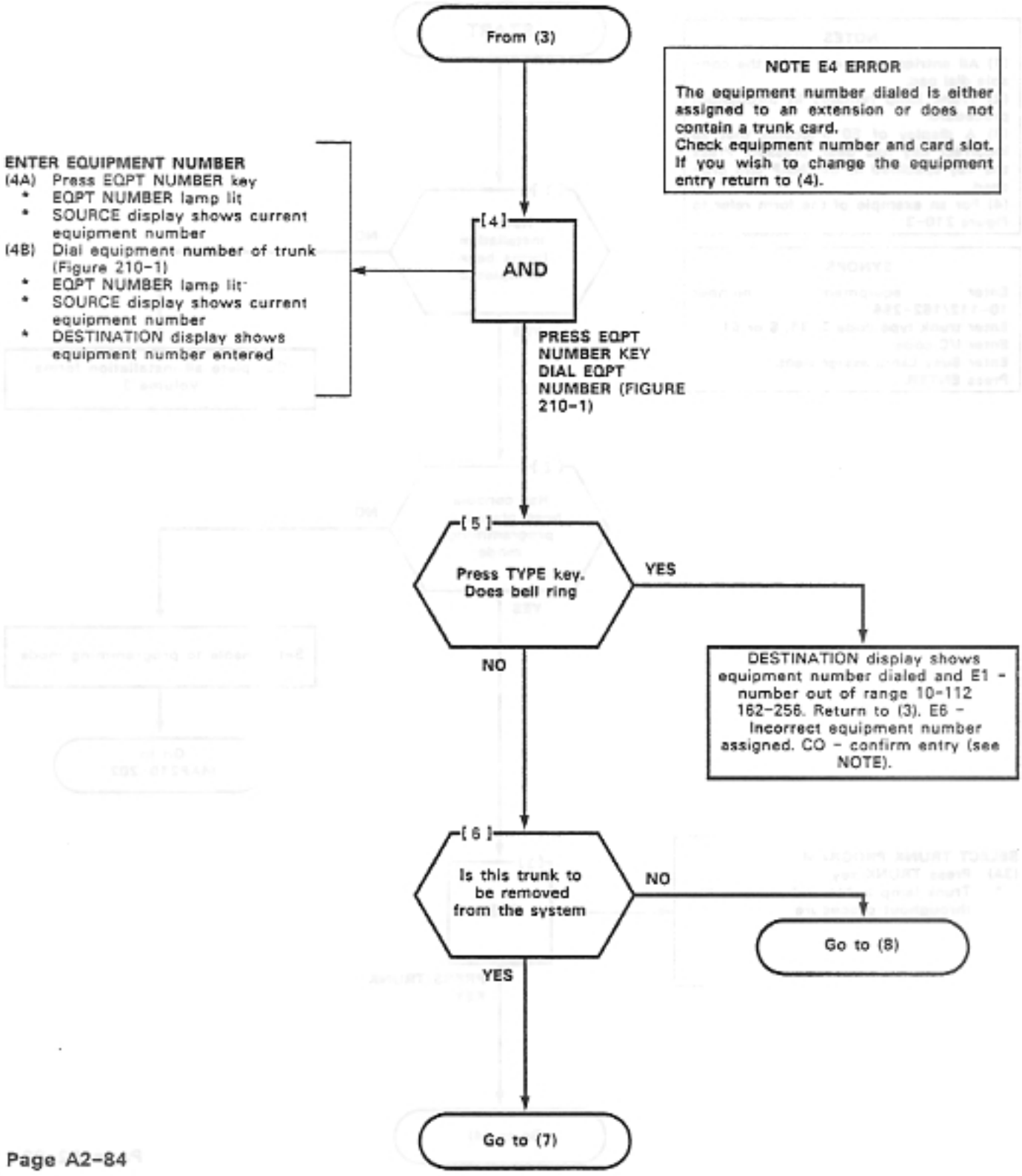

HARDWARE POSITION NUMBER	PLUG 7						PLUG 9						PLUG 11										EXTENSION UNIT NO.	TRUNK UNIT NO. (4 TRUNK)	TRUNK UNIT NO. (2 TRUNK)
	161	169	177	185	193	201	209	217	225	233	241	249											1		
	162	170	178	186	194	202	210	218	226	234	242	250											2	1	1
	163	171	179	187	195	203	211	219	227	235	243	251											3		
	164	172	180	188	196	204	212	220	228	236	244	252											4	2	
	165	173	181	189	197	205	213	221	229	237	245	253											5		
	166	174	182	190	198	206	214	222	230	238	246	254											6	3	2
	167	175	183	191	199	207	215	223	231	239	247	255											7		
	168	176	184	192	200	208	216	224	232	240	248	256											8	4	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	CARD POSITION		
	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	SLOT NUMBER		
	PLUG 8						PLUG 10						PLUG 12												

SHELF 2 (SX-200 ONLY)

HARDWARE POSITION NUMBER	PLUG 1						PLUG 3						PLUG 5										EXTENSION UNIT NO.	TRUNK UNIT NO. (4 TRUNK)	TRUNK UNIT NO. (2 TRUNK)
	001	009	017	025	033	041	049	057	065	073	081	089	097	105	113	CONSOLE CONTROL/RCP CARD	CONSOLE CONTROL CARD	TONE CONTROL					1		
	002	010	018	026	034	042	050	058	066	074	082	090	098	106	114								2	1	1
	003	011	019	027	035	043	051	059	067	075	083	091	099	107	115				RESERVED				3		
	004	012	020	028	036	044	052	060	068	076	084	092	100	108	116				FOR				4	2	
	005	013	021	029	037	045	053	061	069	077	085	093	101	109	117				COMMON				5		
	006	014	022	030	038	046	054	062	070	078	086	094	102	110	118				CONTROLS				6	3	2
	007	015	023	031	039	047	055	063	071	079	087	095	103	111	119								7		
	008	016	024	032	040	048	056	064	072	080	088	096	104	112	120								8	4	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	CARD POSITION		
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	SLOT NUMBER		
	PLUG 2						PLUG 4						PLUG 6												

SHELF 1

NOTES:
1. DUAL AND OR QUAD RECEIVER EQUIPMENT NUMBERS ARE 090, 098, 106, 114, 092, 100, 108 AND 116.
2. QUAD RECEIVER EQUIPMENT NUMBERS ARE 094, 102, 110, 118, 096, 104, 112 AND 120.
3. EQUIPMENT POSITION 001 IS RESERVED FOR THE TEST LINE AND MUST THEREFORE BE EQUIPPED WITH A LINE CARD.
4. TRUNK EQUIPMENT NUMBER IS SAME AS INDIVIDUAL TRUNK ACCESS CODE.
5. SLOT 15 IS RESERVED FOR RECEIVER NO. 1.
6. MAXIMUM NUMBER OF SUPERSET 4s = 64

T642

Figure 210-1 Hardware/Equipment Number

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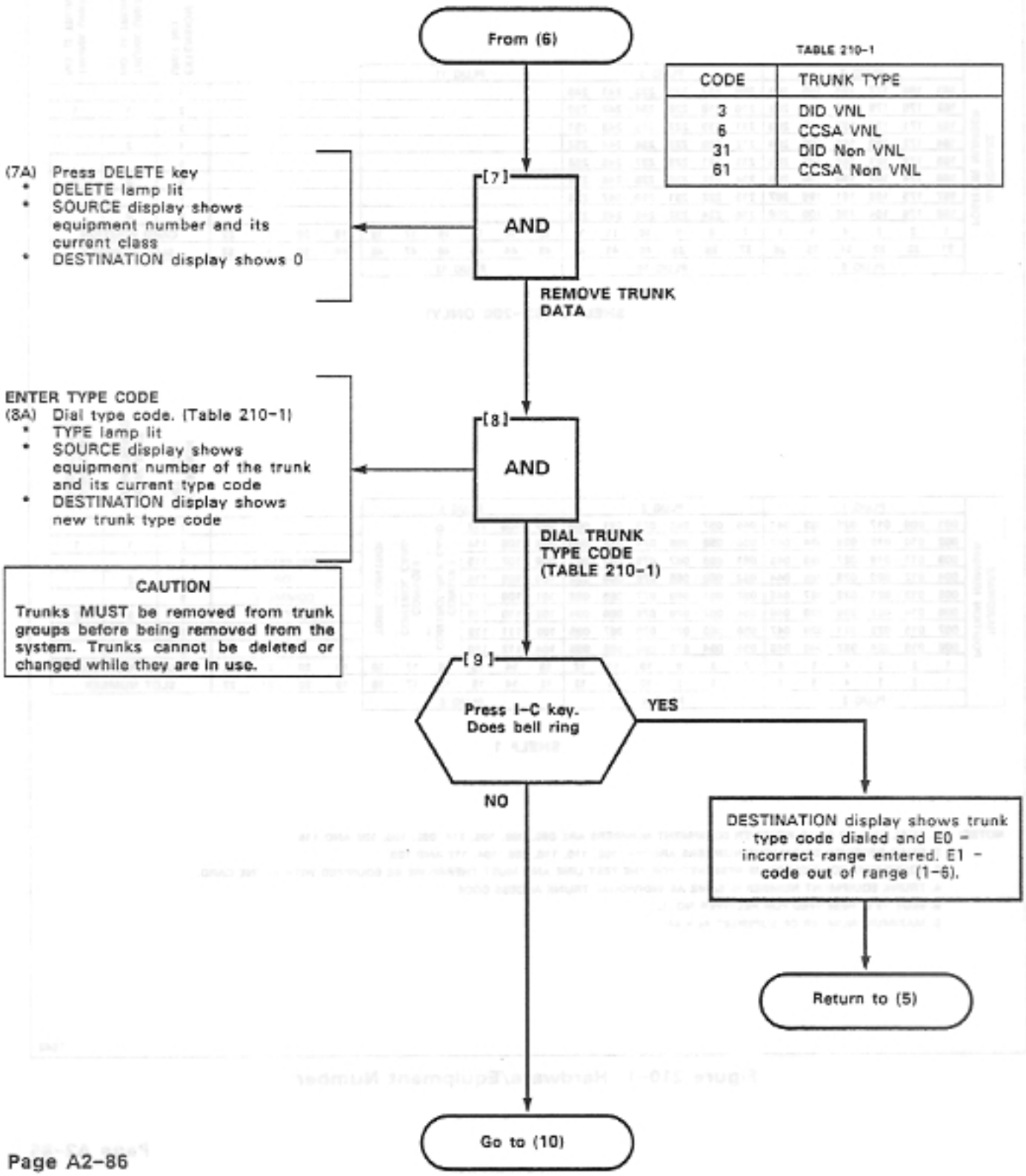

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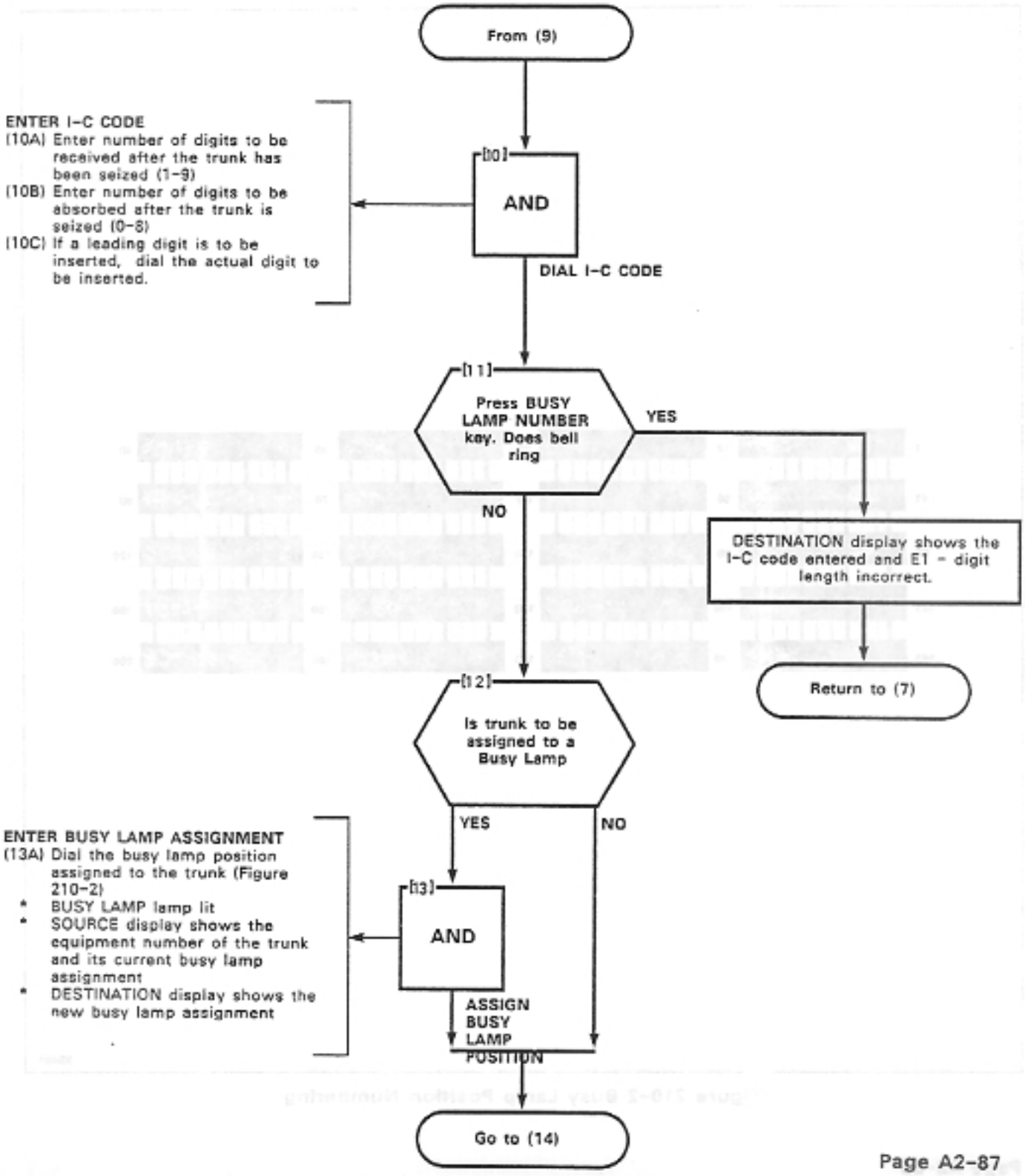

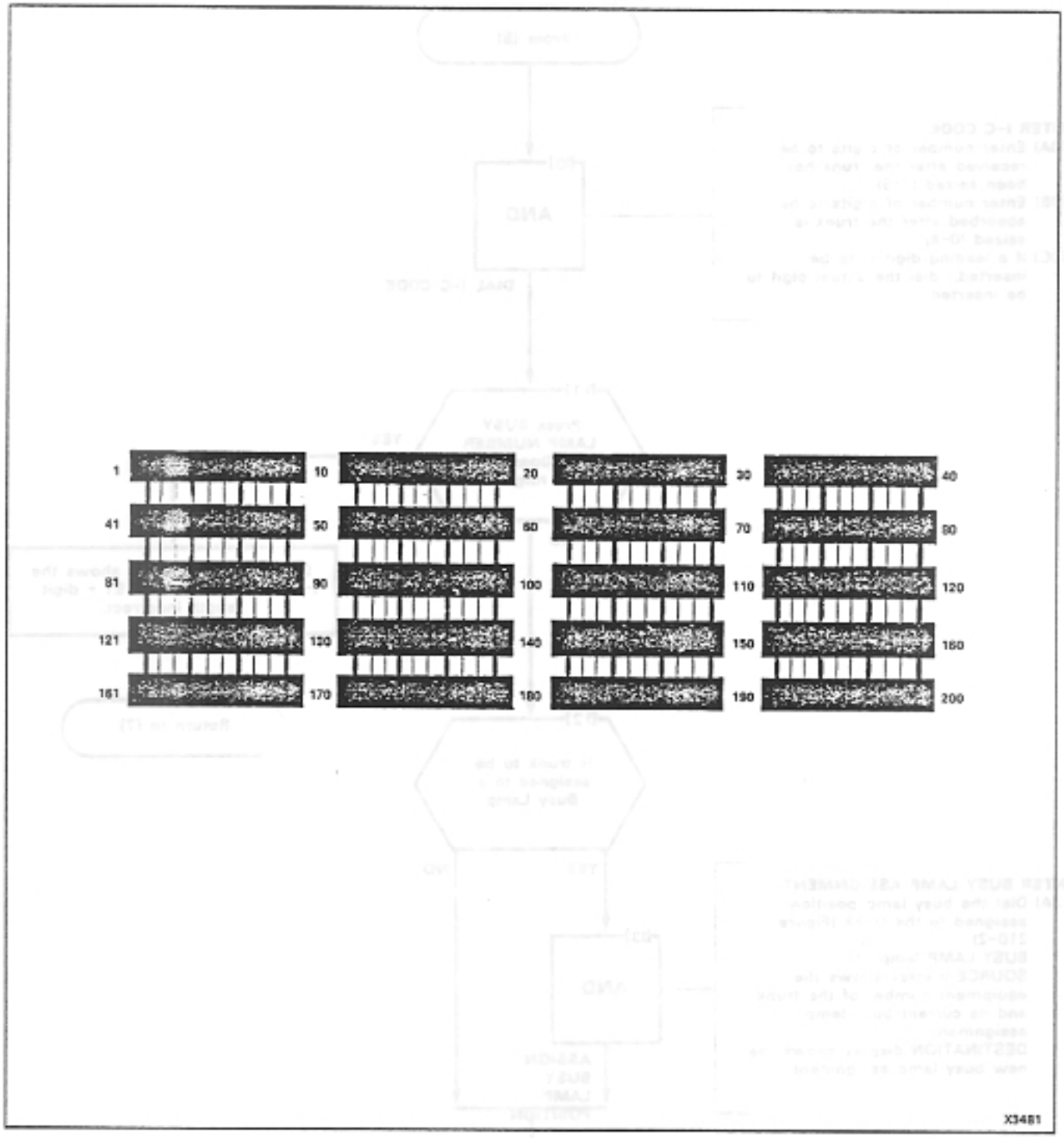

Figure 210-2 Busy Lamp Position Numbering

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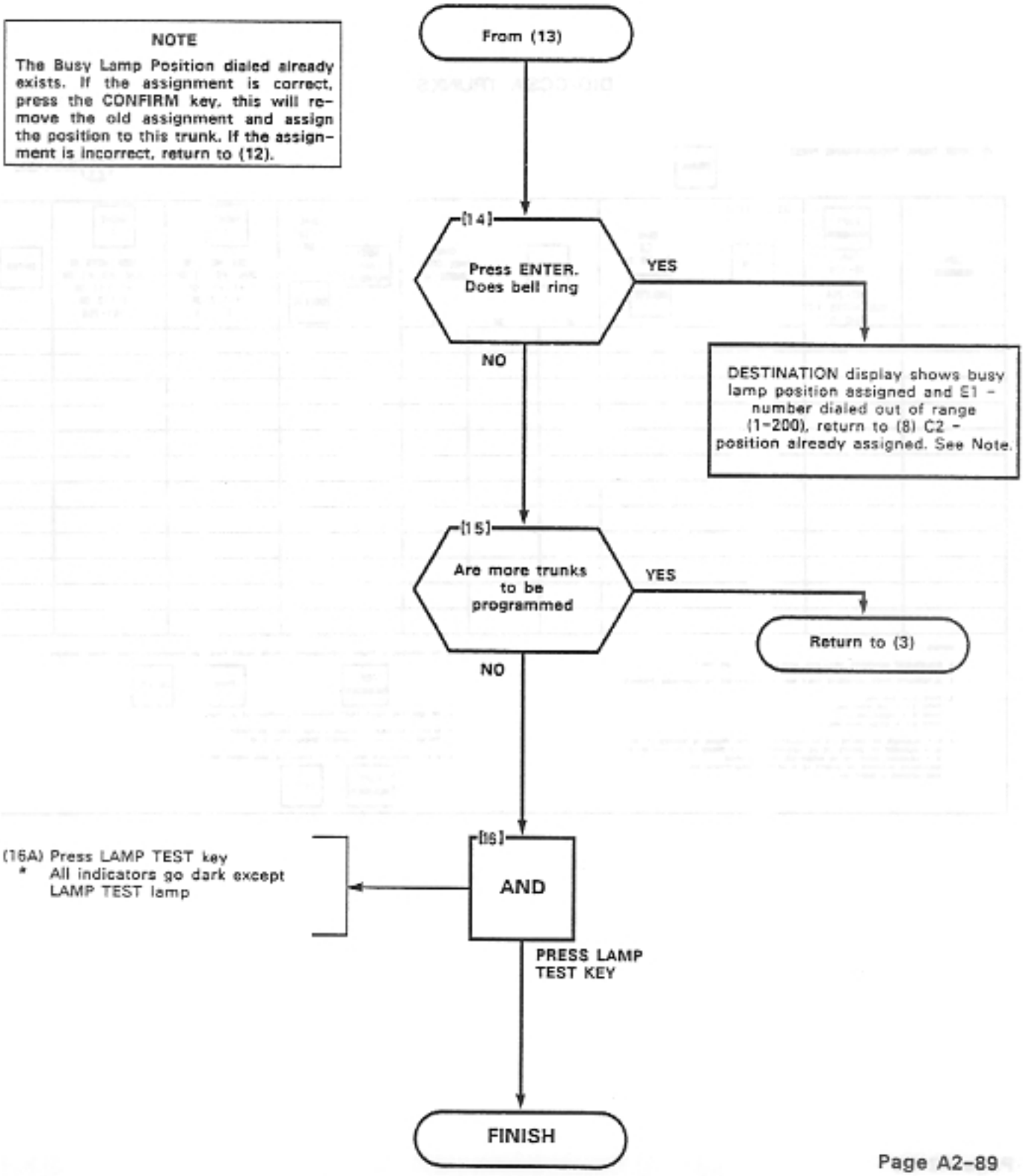

DID/CCSA TRUNKS

TO ENTER TRUNK PROGRAMMING PRESS [TRUNK]

LDN NUMBER	[EQPT NUMBER] DIAL 10-110 OR 162-254 (SEE NOTES 1,2 AND 7)	SEE NOTES 3 [TYPE] DIAL 3,6 31 OR 61 [DELETE]	[I/C] DIAL NMIX CODE (NOTE 4) N	M	X	[BUSY LAMP NUMBER] DIAL 1-200 OR [DELETE]	[NIGHT 1] (SEE NOTE 8) DIAL #0-#3 OR #1-#12 OR 1-112 OR 161-256	[NIGHT 2] (SEE NOTE 8) DIAL #0-#3 OR #1-#12 OR 1-112 OR 161-256	[ENTER]

NOTES:

1. EQUIPMENT NUMBERS 162-254 APPLY TO SX-200 ONLY
2. ALTERNATE EVEN NUMBERS ONLY MAY BE ASSIGNED TO DID/CCSA TRUNKS
3. TYPE 3 = DID VNL
   TYPE 31 = DID NOR VNL
   TYPE 6 = CCSA VNL
   TYPE 61 = CCSA NOR VNL
4. N = NUMBER OF DIGITS TO BE RECEIVED AFTER TRUNK IS SEIZED (1-9)
   M = NUMBER OF DIGITS TO BE ABSORBED AFTER TRUNK IS SEIZED (0-9)
   X = LEADING DIGIT TO BE INSERTED, IF REQUIRED
   MAXIMUM NUMBER OF DIGITS IS 4 AFTER ABSORPTION AND ADDING A DIGIT (X).
5. TO REMOVE A TRUNK ASSIGNMENT, (TRUNK MUST FIRST BE REMOVED FROM TRUNK GROUP)
   [EQPT NUMBER] [TYPE] [DELETE]
6. TO SEE THE NEXT EQPT NUMBER ASSIGNED AS A TRUNK
7. SLOT 1 SHOULD CONTAIN A LINE CARD, SO FIRST TRUNK EQUIPMENT NUMBER SHOULD BE 010
8. # 0 = CONSOLE ONLY, #1 = CONSOLE AND NIGHT BELL 1
   [EQPT NUMBER] [NEXT]

DID/CCSA TRUNKS

TO ENTER TRUNK PROGRAMMING PRESS [TRUNK]

MITEL

LDN NUMBER	[EQPT NUMBER] DIAL 10-110 OR 162-254 (SEE NOTES 1,2 AND 7)	SEE NOTES 3 [TYPE] DIAL 3,6 31 OR 61 [DELETE]	[I/C] N	M	DIAL NMX CODE (NOTE 4) X	[BUSY LAMP NUMBER] DIAL 1-200 OR [DELETE]	[NIGHT 1] (SEE NOTE 8) DIAL #0-#3 OR +1-+12 OR 1-112 OR 161-256	[NIGHT 2] (SEE NOTE 8) DIAL #0-#3 OR +1-+12 OR 1-112 OR 161-256	[ENTER]

NOTES:

1. EQUIPMENT NUMBERS 162-254 APPLY TO SX-200 ONLY
2. ALTERNATE EVEN NUMBERS ONLY MAY BE ASSIGNED TO DID/CCSA TRUNKS
3. TYPE 3 = DID VNL
   TYPE 31 = DID NON VNL
   TYPE 6 = CCSA VNL
   TYPE 61 = CCSA NON VNL
4. N = NUMBER OF DIGITS TO BE RECEIVED AFTER TRUNK IS SEIZED (1-9)
   M = NUMBER OF DIGITS TO BE ABSORBED AFTER TRUNK IS SEIZED (0-9)
   X = LEADING DIGIT TO BE INSERTED, IF REQUIRED
   MAXIMUM NUMBER OF DIGITS IS 4 AFTER ABSORPTION AND ADDING A DIGIT (X).
6. TO REMOVE A TRUNK ASSIGNMENT, TRUNK MUST FIRST BE REMOVED FROM TRUNK GROUP.
   [EQPT NUMBER] [TYPE] [DELETE]
6. TO SEE THE NEXT EQPT NUMBER ASSIGNED AS A TRUNK
7. SLOT 1 SHOULD CONTAIN A LINE CARD, SO FIRST TRUNK EQUIPMENT NUMBER SHOULD BE 010
8. # 0 = CONSOLE ONLY, #1 = CONSOLE AND RIGHT BELL 1
   [EQPT NUMBER] [NEXT]

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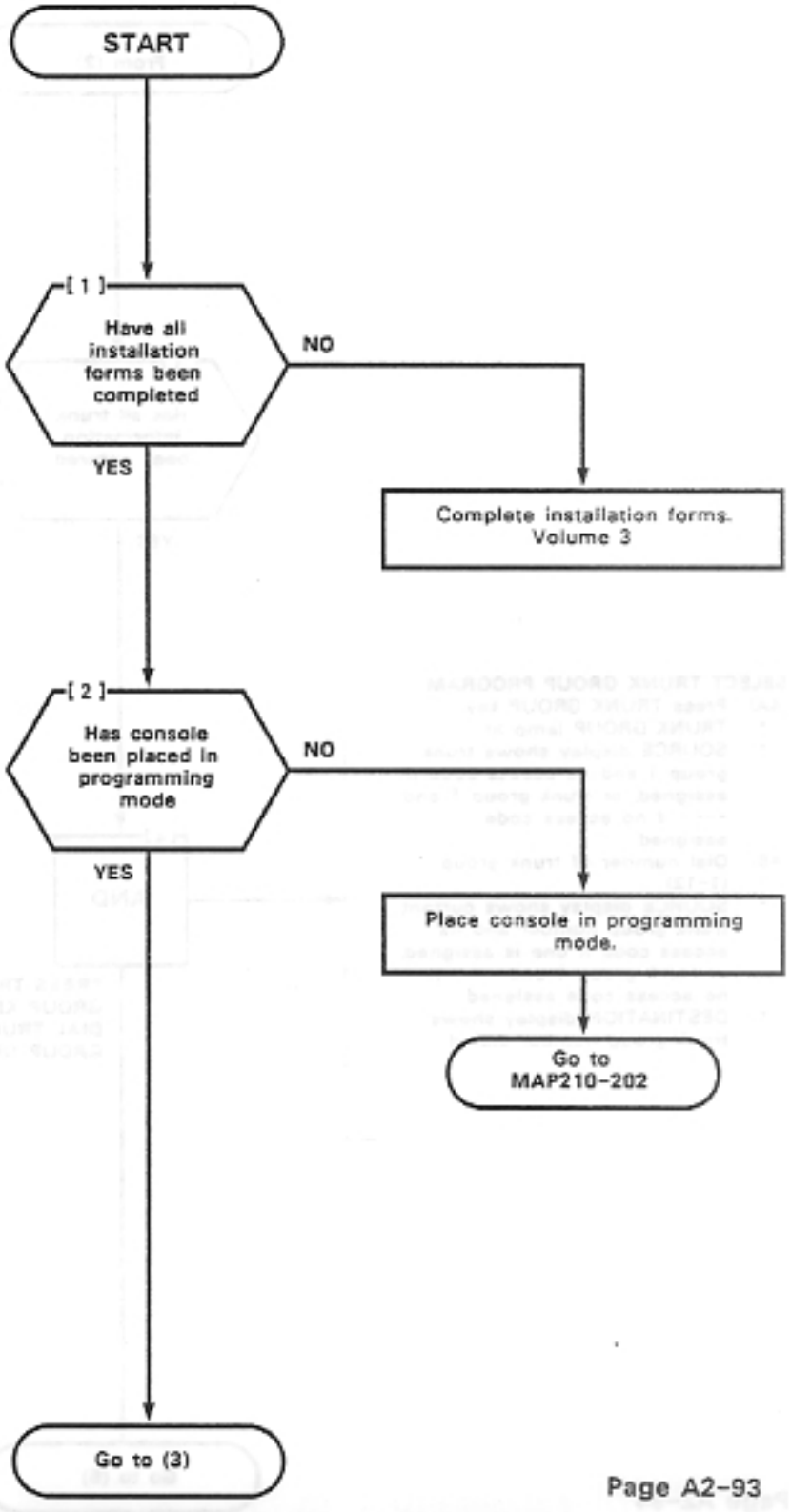
NOTES

(1) All entries are made from the console dial pad.
(2) TRUNK GROUP lamp remains lit throughout procedure.
(3) A display of E0 indicates that an incorrect key has been pressed, press the key specified in the MAP.
(4) If an equipment number is to be changed all trunks within the trunk group must be reentered.
(5) For an example of the programming form refer to Figure 211-1.

SYNOPSIS

Set up trunk group and access code.
Assign trunk group type, Toll Deny and Overflow Group codes.
Enter all trunk equipment numbers assigned to the trunk group.



PROGRAM TRUNK GROUPS
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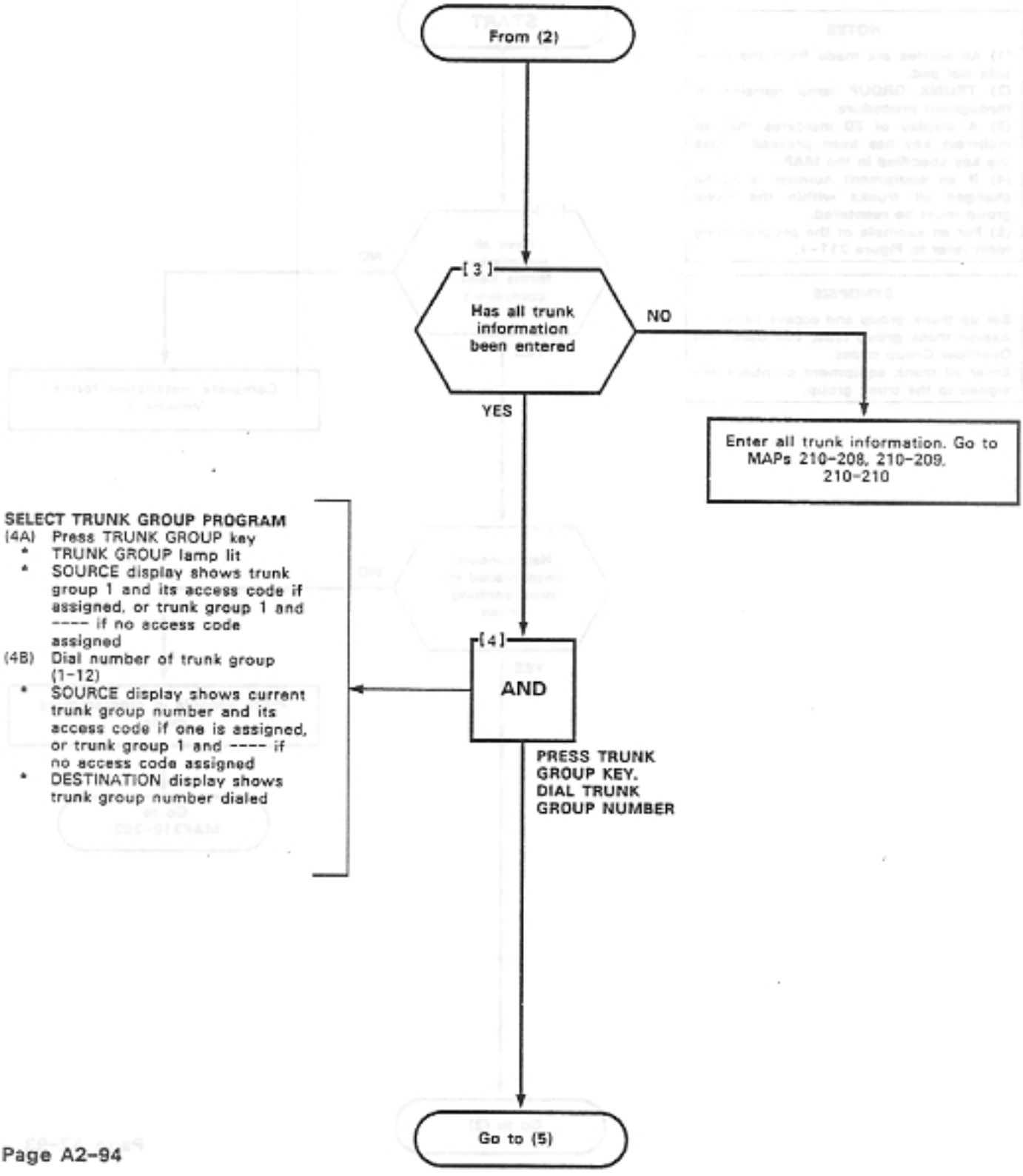

PROGRAM TRUNK GROUPS
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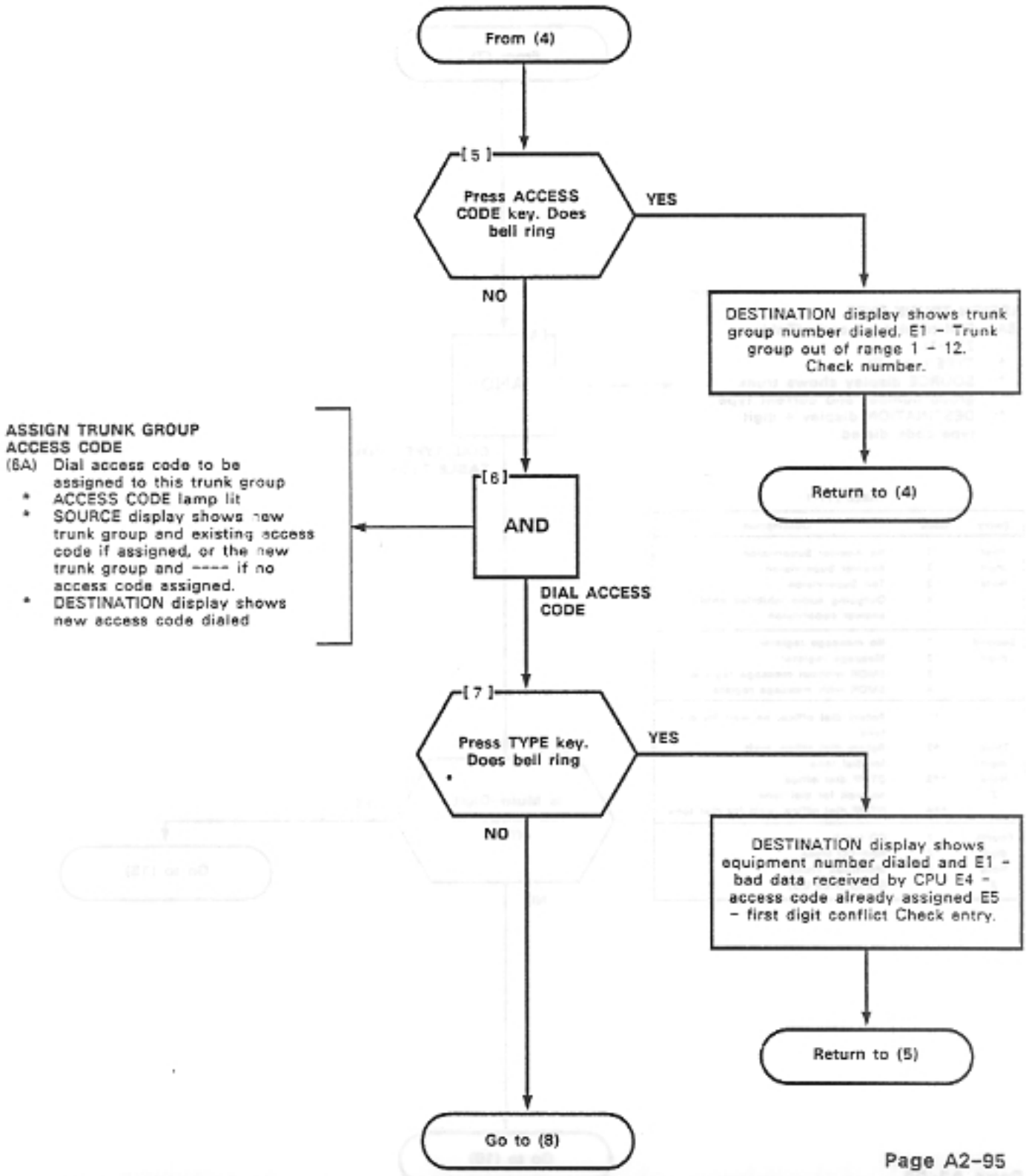

PROGRAM TRUNK GROUPS
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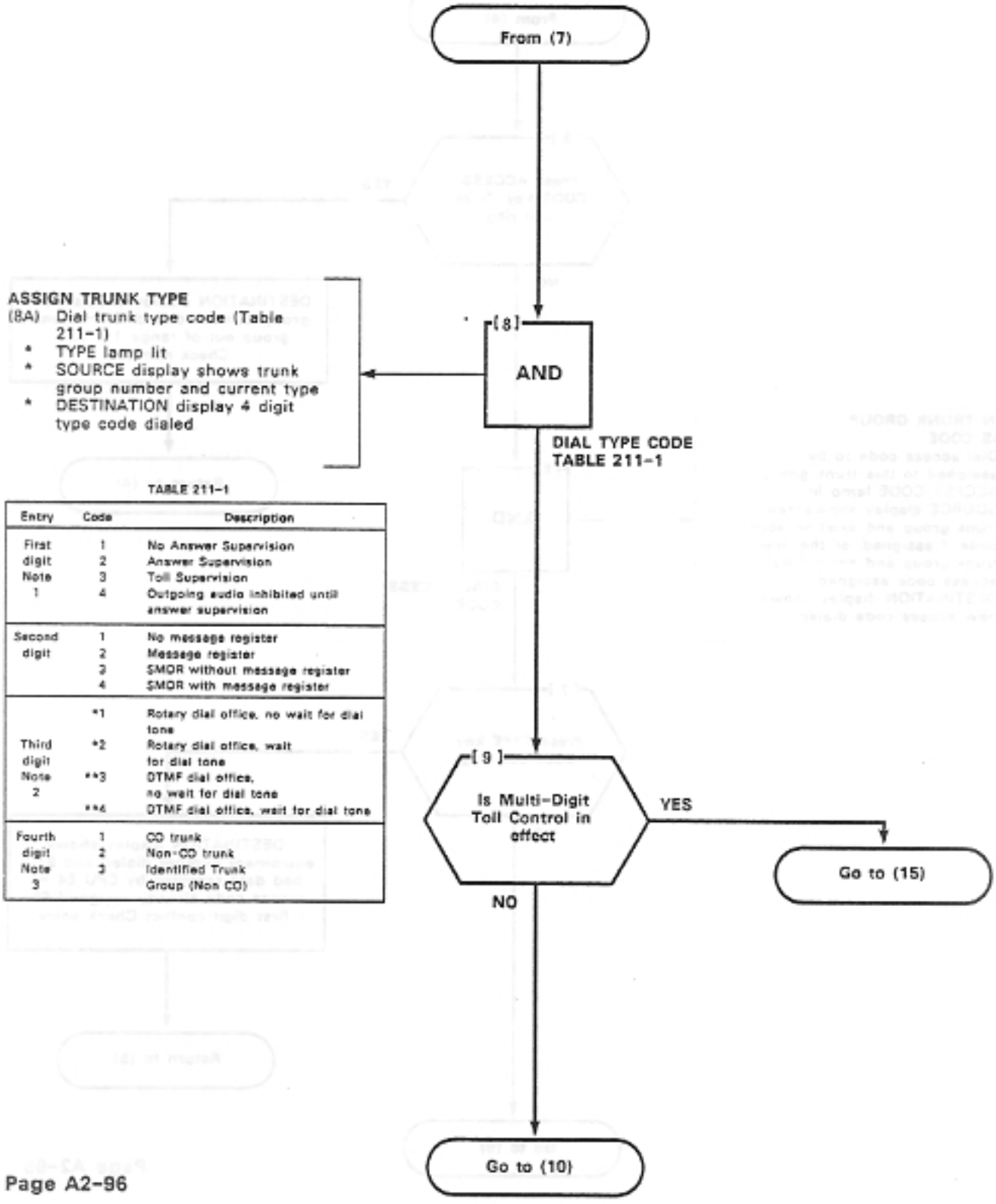

TABLE 211-1

Entry	Code	Description
First digit Note 1	1	No Answer Supervision
	2	Answer Supervision
	3	Toll Supervision
	4	Outgoing audio inhibited until answer supervision
Second digit	1	No message register
	2	Message register
	3	SMDR without message register
	4	SMDR with message register
Third digit Note 2	*1	Rotary dial office, no wait for dial tone
	*2	Rotary dial office, wait for dial tone
	**3	DTMF dial office, no wait for dial tone
	**4	DTMF dial office, wait for dial tone
Fourth digit Note 3	1	CO trunk
	2	Non-CO trunk
	3	Identified Trunk Group (Non CO)

PROGRAM TRUNK GROUPS
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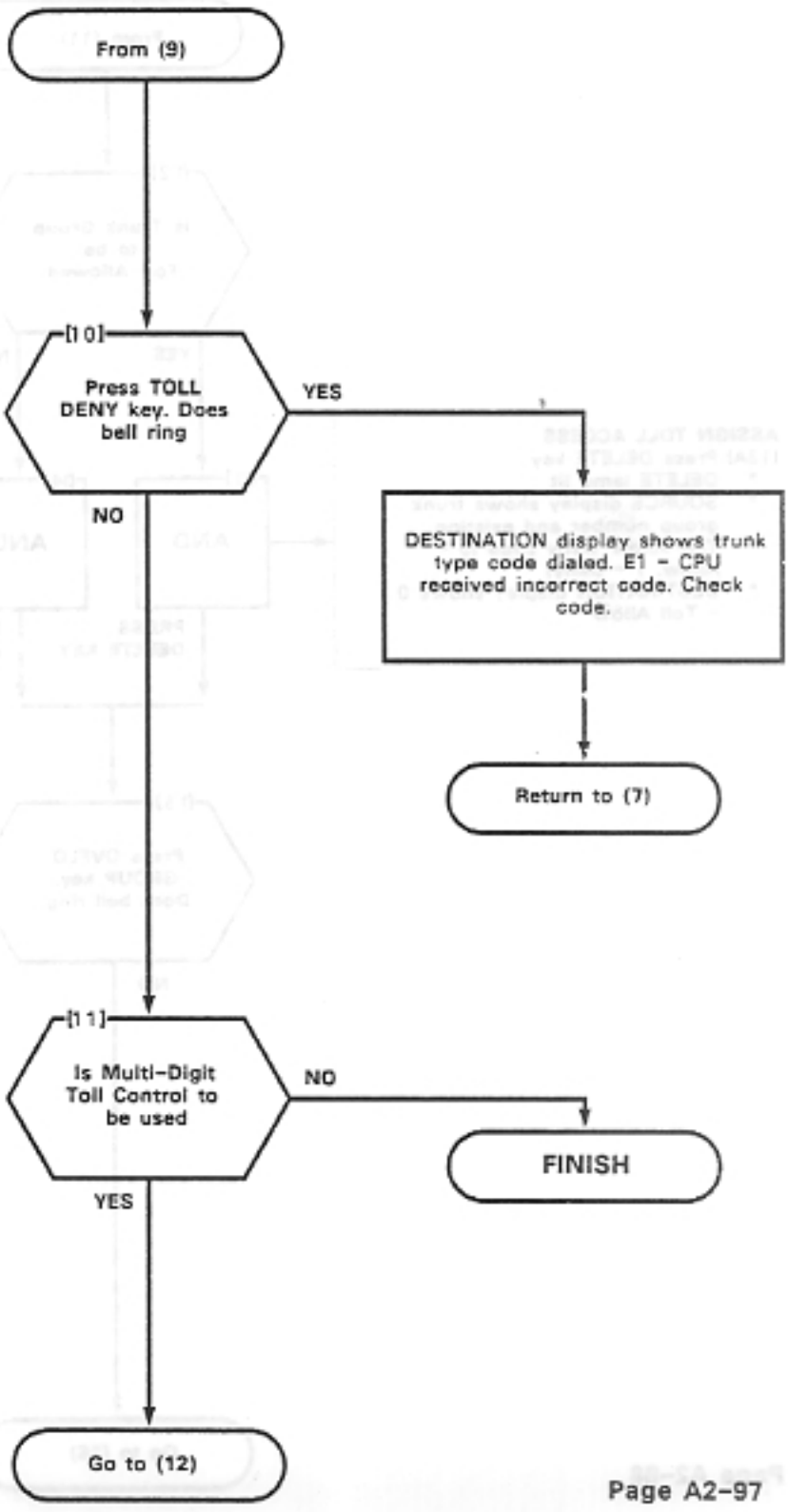
NOTE 1
- If answer supervision is not required (or not provided by the CO), then use 1 - No Answer Supervision.
- If tandem trunking or Message Registration is used, then use 2 - Answer Supervision.
- If supervision is used to indicate toll calls, and this feature is required, then use 2 - Toll Supervision.
- If audio cut-through or tie trunk tandem calls is required only after receipt of answer supervision, then use 4 - Outgoing Audio Inhibit until Answer Supervision.

NOTE 2
- If "wait for dial tone" is selected then any digits dialed prior to receipt of CO dial tone are ignored by the PABX. This prevents circumvention of the toll denial by dialing a fast valid digit before CO dial tone is received.

NOTE 3
- If the fourth digit selected is 3, the third digit must be 1.

* If extensions are DTMF the trunk will convert to dial pulse. Early line split is not provided.

** Trunks will repeat DTMF or dial pulse signals.



PROGRAM TRUNK GROUPS
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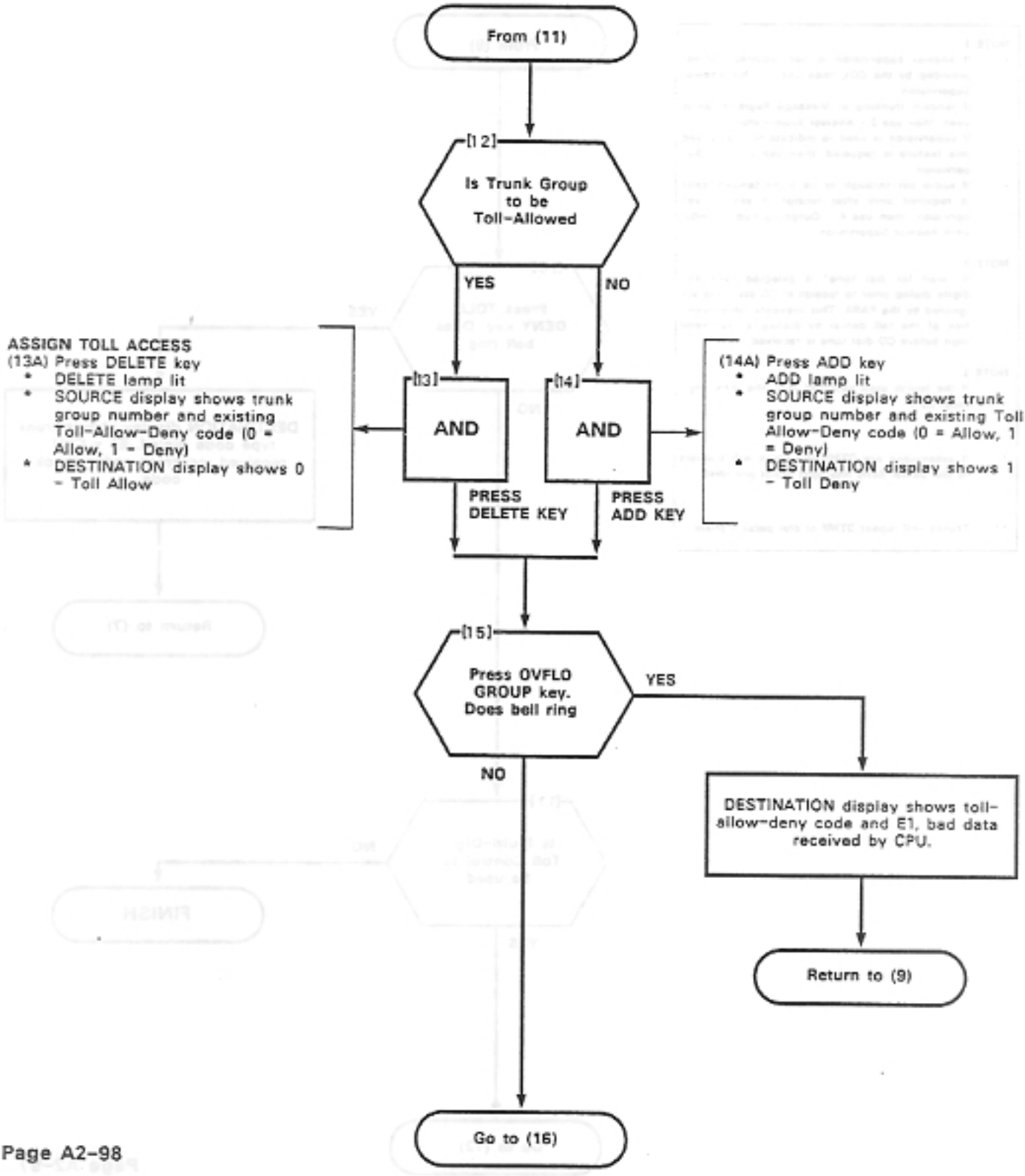

PROGRAM TRUNK GROUPS
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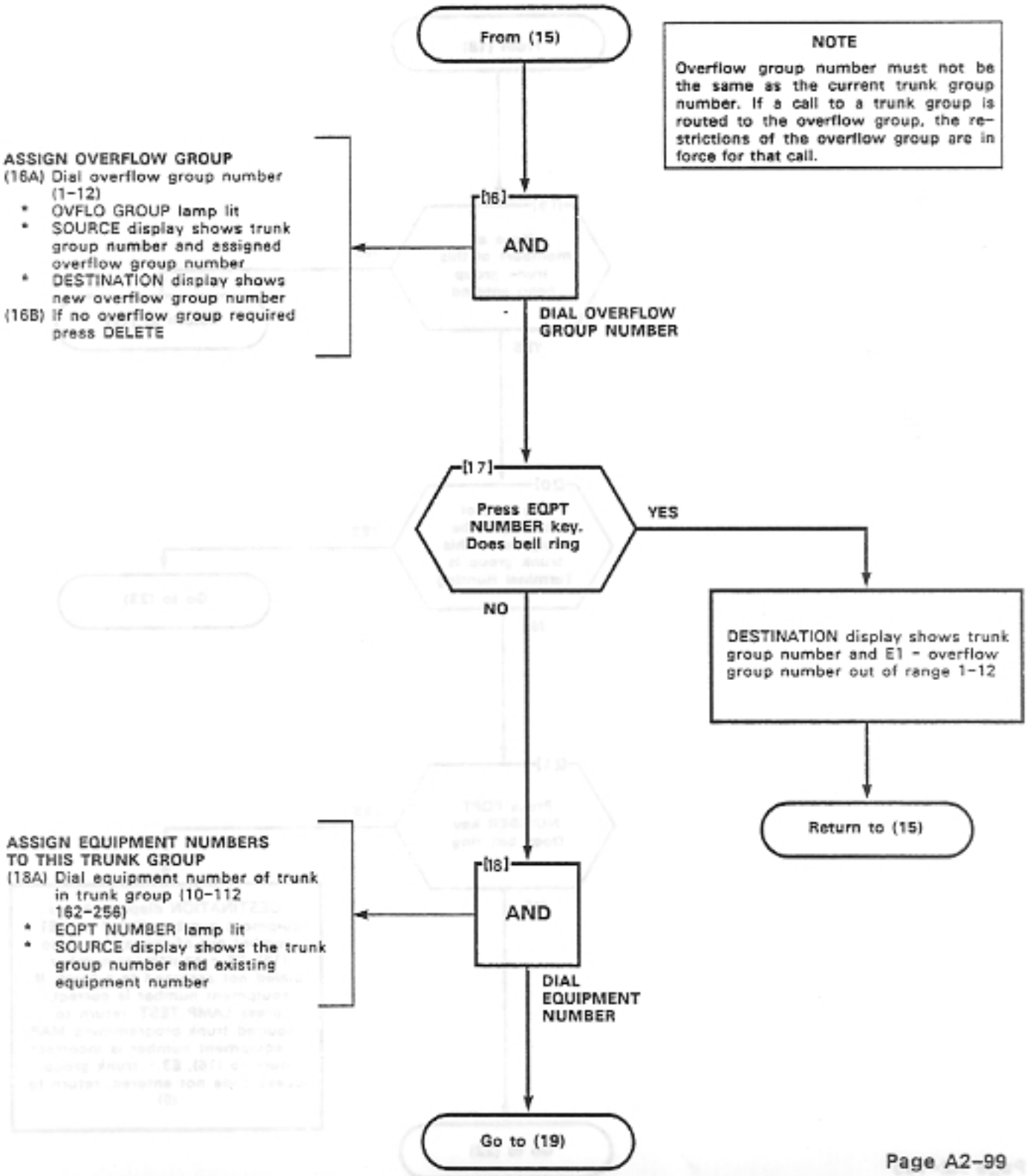

PROGRAM TRUNK GROUPS
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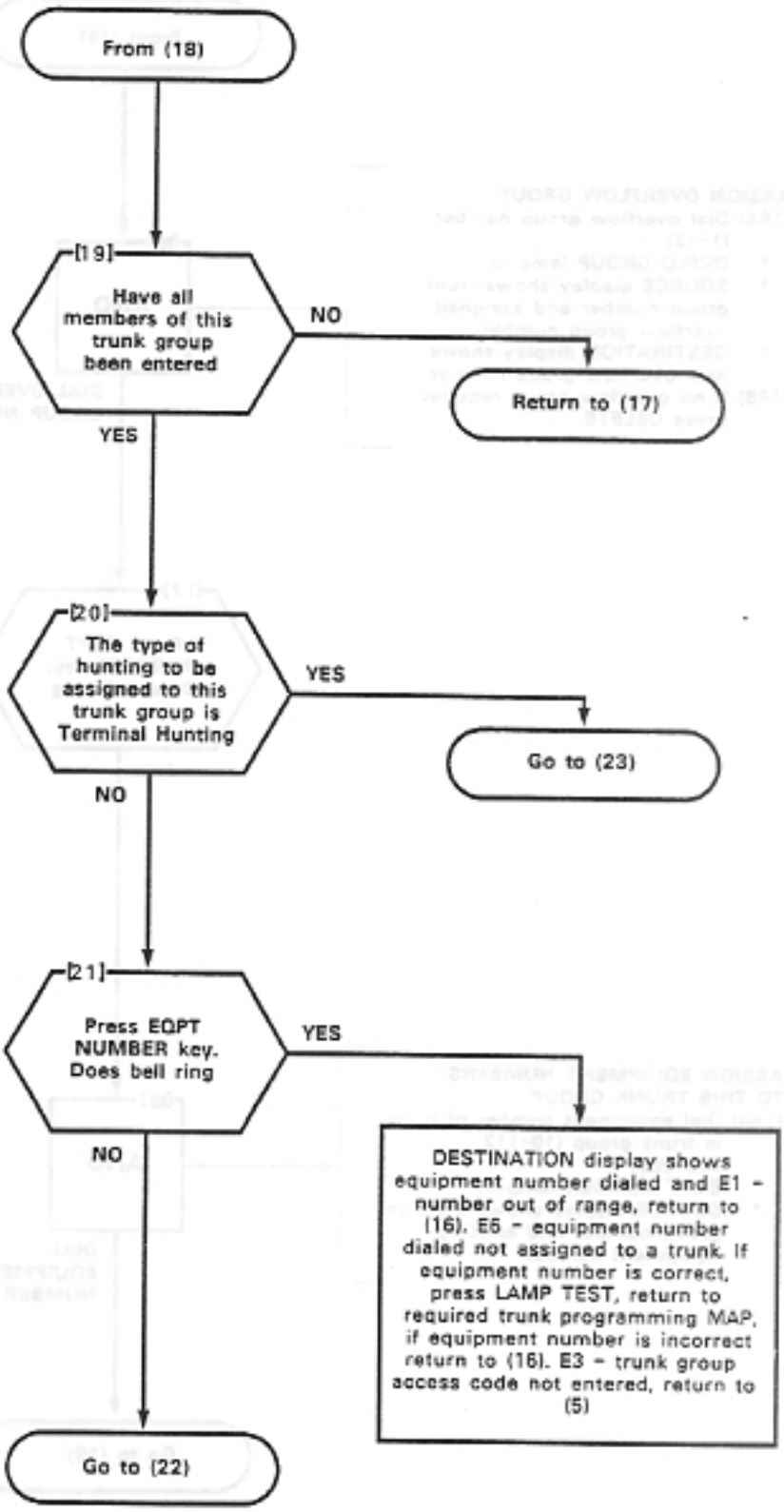

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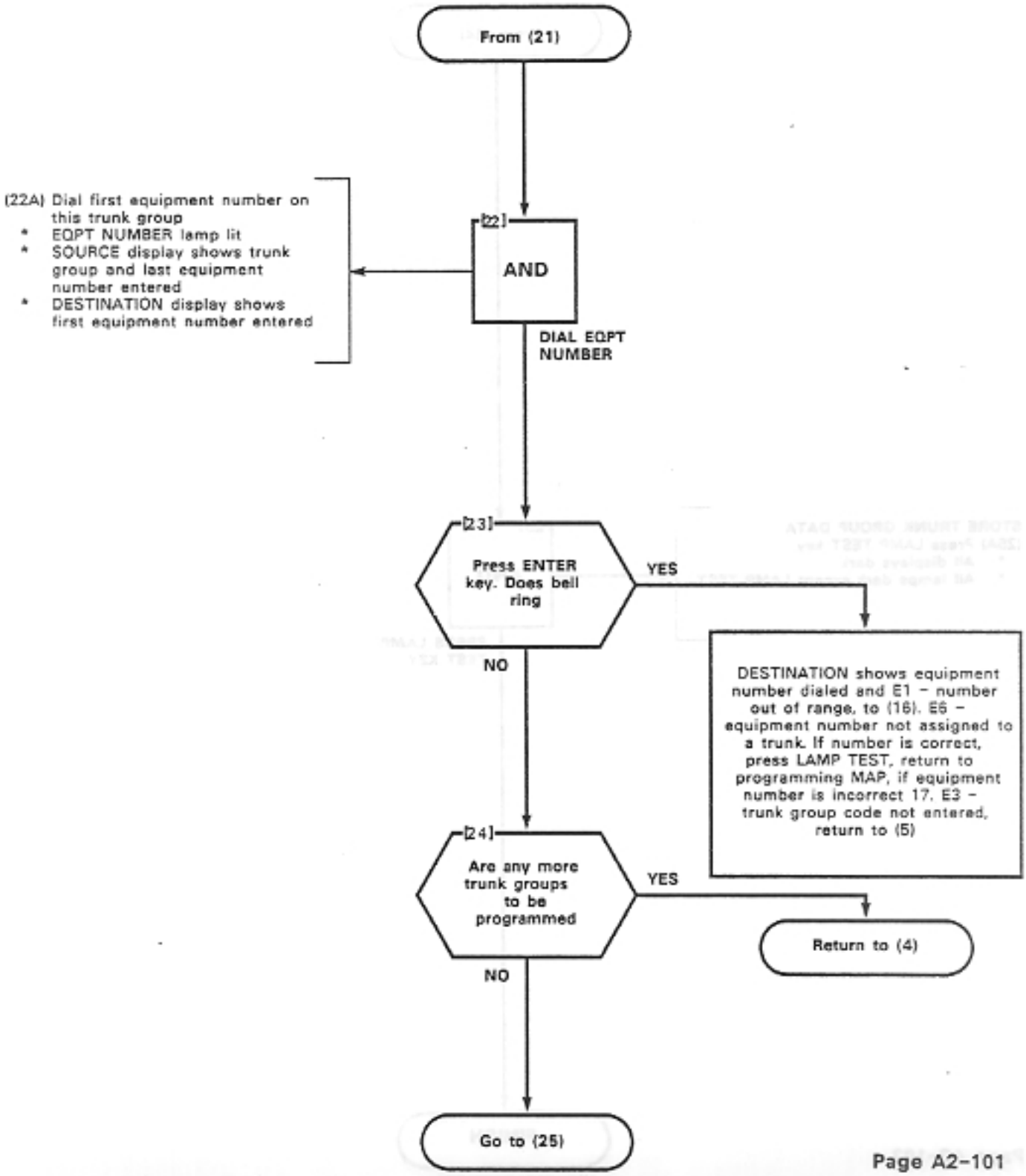

PROGRAM TRUNK GROUPS
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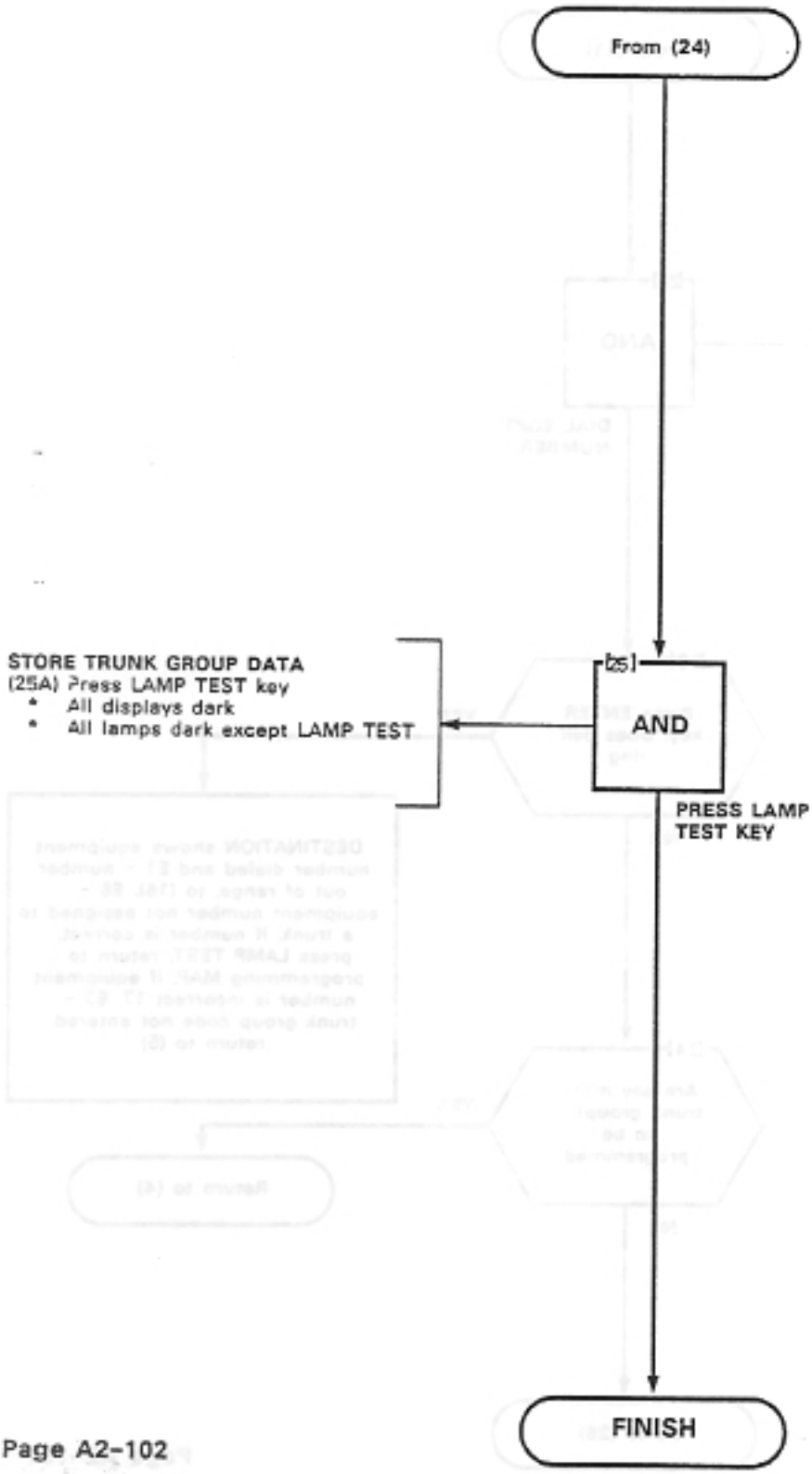


TRUNK GROUPS

TO ENTER TRUNK GROUP PROGRAMMING PRESS [TRUNK GROUP] (TRUNK INFORMATION MUST BE ENTERED BEFORE TRUNK GROUP DATA)

[TRUNK GROUP] DIAL 1-12 NOTE 11	[ACCESS CODE] DIAL CODE OR [DELETE]	[TYPE] SEE NOTES 6 & 7: 1ST DIGIT	2ND DIGIT	3RD DIGIT	4TH DIGIT	[TOLL DENY] [ADD] OR [DELETE] NOTES 9 & 10	[OVFLO GROUP] NOTE 3 DIAL 1-12 OR [DELETE]		SEE NOTE 4 AND 8. PRESS [EQPT NUMBER] BEFORE DIALING EACH EQUIPMENT NUMBER ENTRY. AFTER LAST ENTRY PRESS [ENTER]								
1	40	1	3	4	1	0	0		70	72	74	76	78	80	82	84	
2	41	1	3	4	1	0	0		90	92	94						
3	42	1	3	4	1	0	0		96								
4	43	1	3	4	1	0	0		86								
5	44	1	3	4	1	0	0		66	68							

NOTES

1. TO SEE THE TRUNKS IN A TRUNK GROUP: [TRUNK GROUP] DIAL NUMBER 1-123 [EQPT NUMBER] [NEXT] [NEXT]
2. TO SEE ALL TRUNK GROUPS: [TRUNK GROUP] [NEXT] [NEXT]
3. TO DELETE TRUNK GROUP: [TRUNK GROUP] DIAL NUMBER 1-123 [ACCESS CODE] [DELETE] [ENTER]
4. TO MAKE A CHANGE TO A TRUNK GROUP, THE LIST OF MEMBERS MUST BE RE-ENTERED. INDIVIDUAL MEMBERS CANNOT BE DELETED OR CHANGED. THE EXISTING TRUNK GROUP LIST IS AUTOMATICALLY DELETED WHEN YOU START TO ENTER A NEW ONE.
5. ORIGINAL AND OVERFLOW TRUNK GROUPS MUST BE THE SAME TYPE AND HAVE THE SAME TOLL RESTRICTION CHARACTERISTICS.
6. TRUNK GROUP TYPE IS 4 DIGITS

1ST DIGIT
1-NO SUPERVISION
2-ANSWER SUPERVISION
3-TOLL REVERSAL
4-OUTGOING AUDIO INHIBITED UNTIL ANSWER SUPERVISION TIMEOUT OR ROAMED

2ND DIGIT
1-NO MESSAGE REGISTER
2-MESSAGE REGISTER
3-ENDR WITHOUT MESSAGE REGISTER
4-ENDR WITH MESSAGE REGISTER

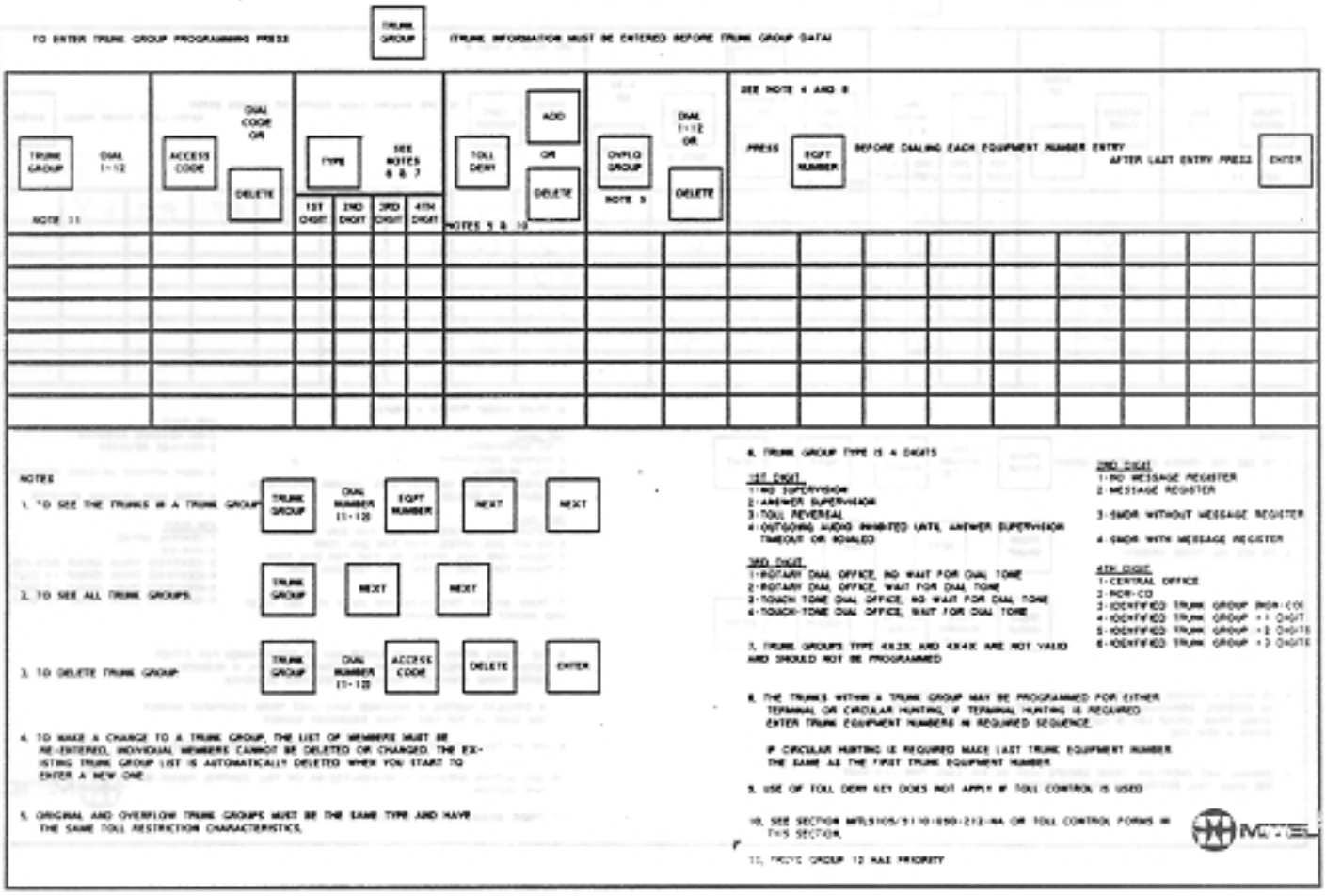
3RD DIGIT
1-ROTARY DIAL OFFICE, NO WAIT FOR DIAL TONE
2-ROTARY DIAL OFFICE, WAIT FOR DIAL TONE
3-TOUCH TONE DIAL OFFICE, NO WAIT FOR DIAL TONE
4-TOUCH-TONE DIAL OFFICE, WAIT FOR DIAL TONE

4TH DIGIT
1-CENTRAL OFFICE
2-NON-CO
3-IDENTIFIED TRUNK GROUP NON-CO
4-IDENTIFIED TRUNK GROUP +1 DIGIT
5-IDENTIFIED TRUNK GROUP +2 DIGITS
6-IDENTIFIED TRUNK GROUP +3 DIGITS

7. TRUNK GROUPS TYPE 4X3X AND 4X4X ARE NOT VALID AND SHOULD NOT BE PROGRAMMED
8. THE TRUNKS WITHIN A TRUNK GROUP MAY BE PROGRAMMED FOR EITHER TERMINAL OR CIRCULAR HUNTING. IF TERMINAL HUNTING IS REQUIRED ENTER TRUNK EQUIPMENT NUMBERS IN REQUIRED SEQUENCE.

   IF CIRCULAR HUNTING IS REQUIRED MAKE LAST TRUNK EQUIPMENT NUMBER THE SAME AS THE FIRST TRUNK EQUIPMENT NUMBER.
9. USE OF TOLL DENY KEY CODES NOT APPLY IF TOLL CONTROL IS USED.
10. SEE SECTION MITL9105/9110-090-212-NA OR TOLL CONTROL FORMS IN THIS SECTION.
11. TRUNK GROUP 12 HAS PRIORITY.

TRUNK GROUPS



RANGE PROGRAMMING FOR EXTENSION
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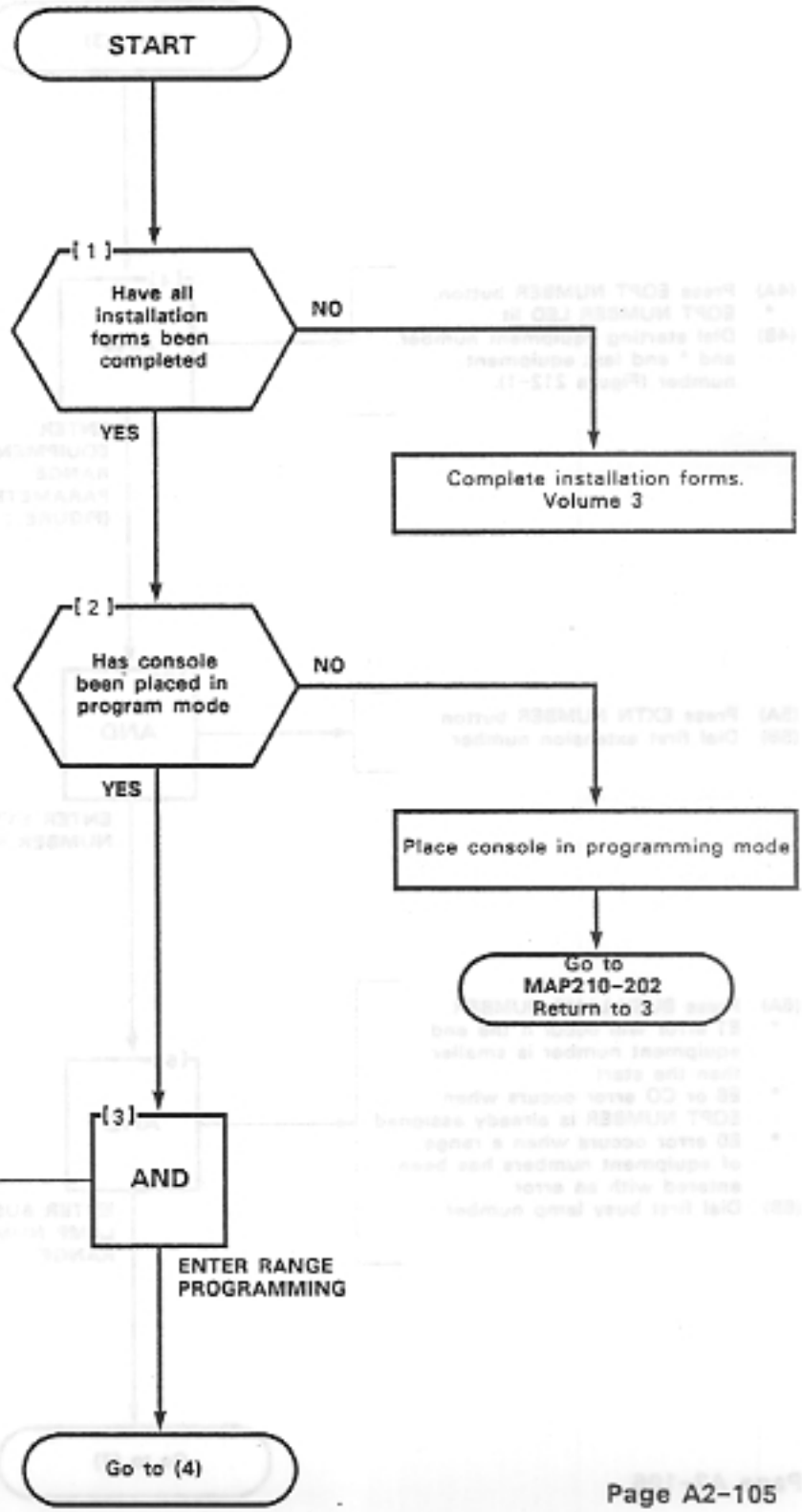
NOTE

For an example of the programming form refer to Figure 212-2.

SYNOPSIS RANGE PROGRAMMING

Enter RANGE programming
Enter first equipment number, dial *
Enter last equipment number
Enter first extension number
Enter first BUSY LAMP NUMBER
Enter COS number for Range
Enter Toll Deny
Enter Pickup Group
Enter Data



RANGE PROGRAMMING FOR EXTENSIONS
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From (3)

[4]
AND

(4A) Press EQPT NUMBER button.
* EQPT NUMBER LED lit
(4B) Dial starting equipment number, and * and last equipment number (Figure 212-1).

ENTER EQUIPMENT RANGE PARAMETERS (FIGURE 212-1)

[5]
AND

(5A) Press EXTN NUMBER button
(5B) Dial first extension number

ENTER EXTN NUMBER RANGE

[6]
AND

(6A) Press BUSY LAMP NUMBER
* E1 error will occur if the end equipment number is smaller than the start
* E6 or CO error occurs when EQPT NUMBER is already assigned
* E0 error occurs when a range of equipment numbers has been entered with an error
(6B) Dial first busy lamp number

ENTER BUSY LAMP NUMBER RANGE

Go to (7)

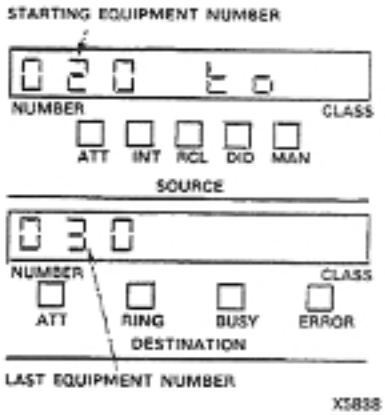

Figure 213-1

RANGE PROGRAMMING FOR EXTENSION
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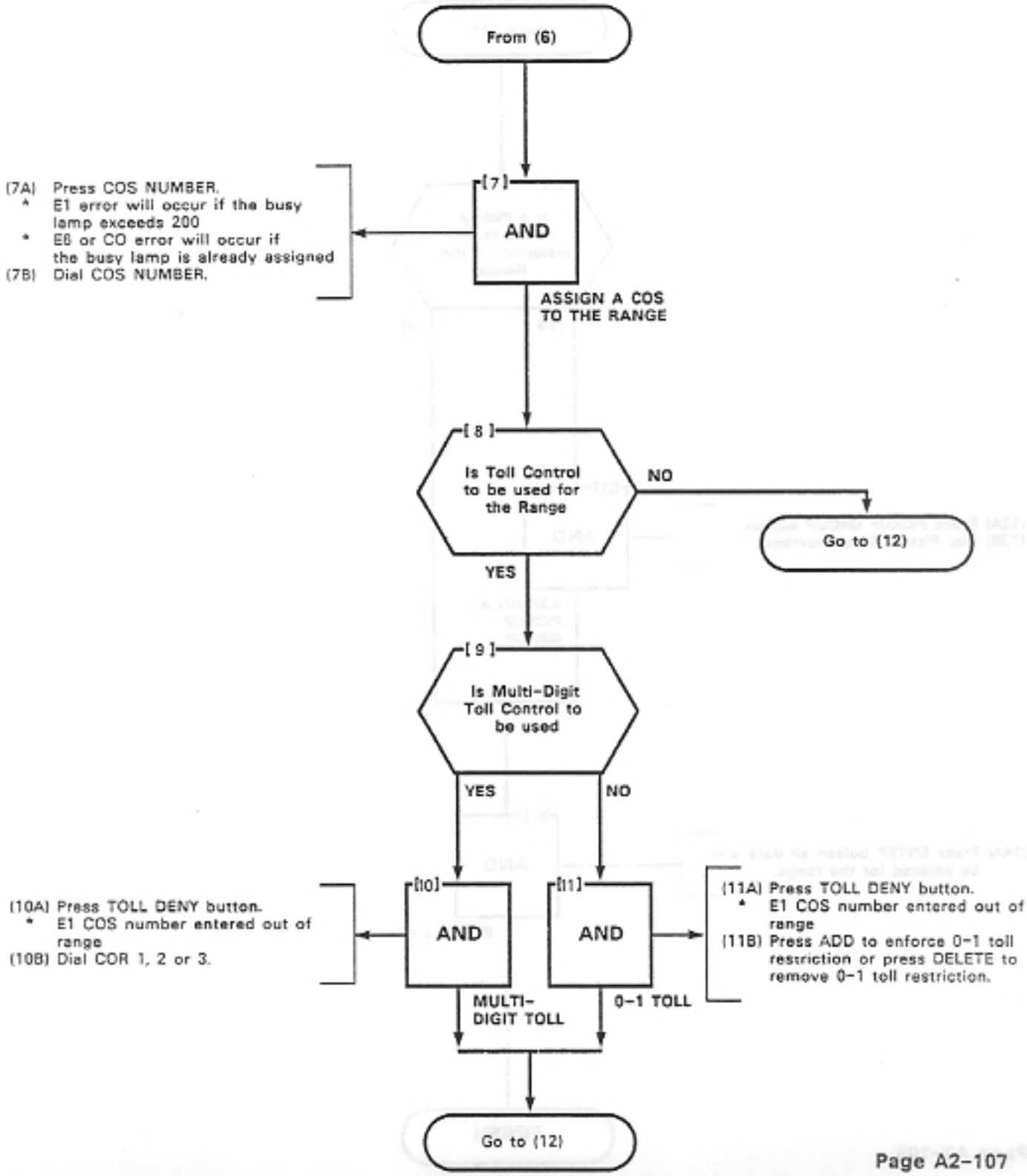

RANGE PROGRAMMING FOR EXTENSIONS
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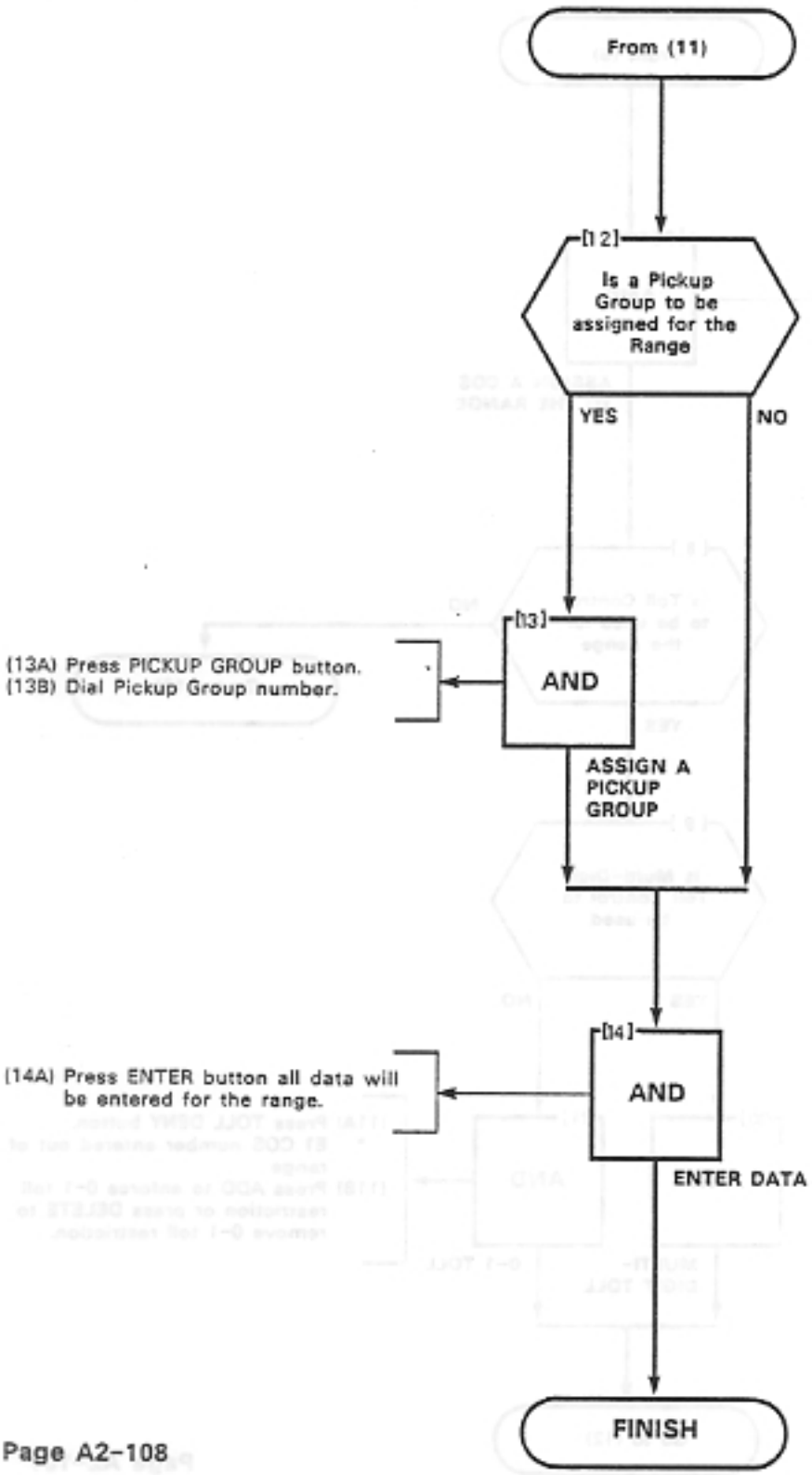


EXTENSION RANGE PROGRAMMING

TO ENTER EXTENSION RANGE PROGRAMMING PRESS [RANGE]

BASE	[EQPT NUMBER] DIAL FIRST EQPT NUMBER, DIAL + DIAL LAST EQPT NUMBER NOTE 1	[EXTN NUMBER] DIAL FIRST CODE OF RANGE OR SEE NOTES 2,3 OR 4	[COS NUMBER] DIAL COS 1-16 FOR RANGE	TOLL DENY [ADD] [TOLL DENY] OR DIAL COR CODE 1,2,OR 3 OR TOLL ALLOW NOTE 5 [DELETE]	[BUSY LAMP NUMBER] DIAL FIRST BUSY LAMP 1-200 OR [DELETE]	[PICKUP GROUP] DIAL 1-30 FOR RANGE OR [DELETE]	[ENTER]

NOTES

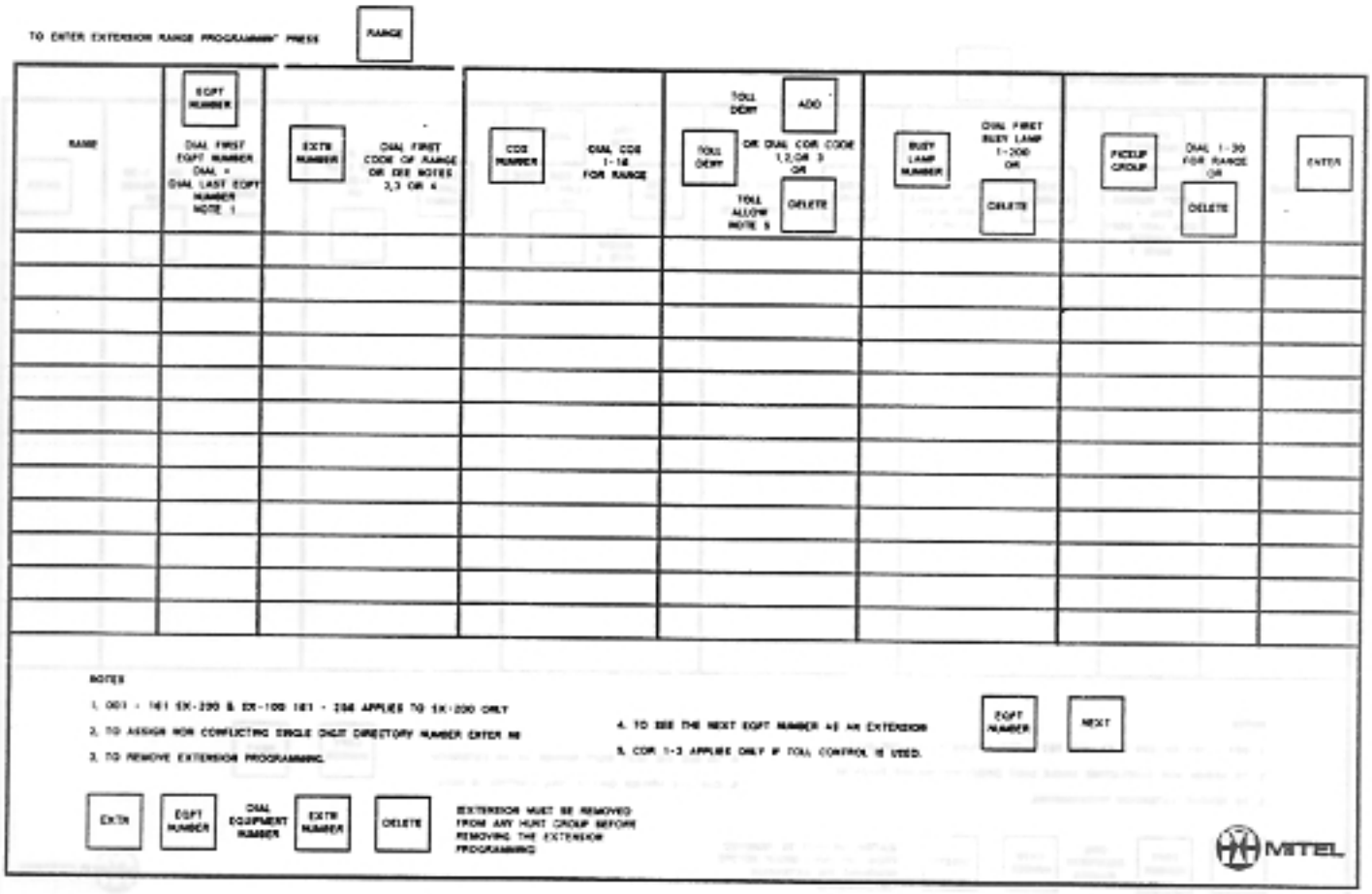
1. 001 - 101 SX-200 & SX-100 101 - 256 APPLIES TO SX-200 ONLY
2. TO ASSIGN NON CONFLICTING SINGLE DIGIT DIRECTORY NUMBER ENTER #8
3. TO REMOVE EXTENSION PROGRAMMING,

[EXTN] [EQPT NUMBER] DIAL EQUIPMENT NUMBER [EXTN NUMBER] [DELETE] EXTENSION MUST BE REMOVED FROM ANY HUNT GROUP BEFORE REMOVING THE EXTENSION PROGRAMMING

4. TO SEE THE NEXT EQPT NUMBER AS AN EXTENSION [EQPT NUMBER] [NEXT]
5. COR 1-3 APPLIES ONLY IF TOLL CONTROL IS USED.

MITEL

EXTENSION RANGE PROGRAMMING



TERMINATING STANDARD PROGRAMMING MODE
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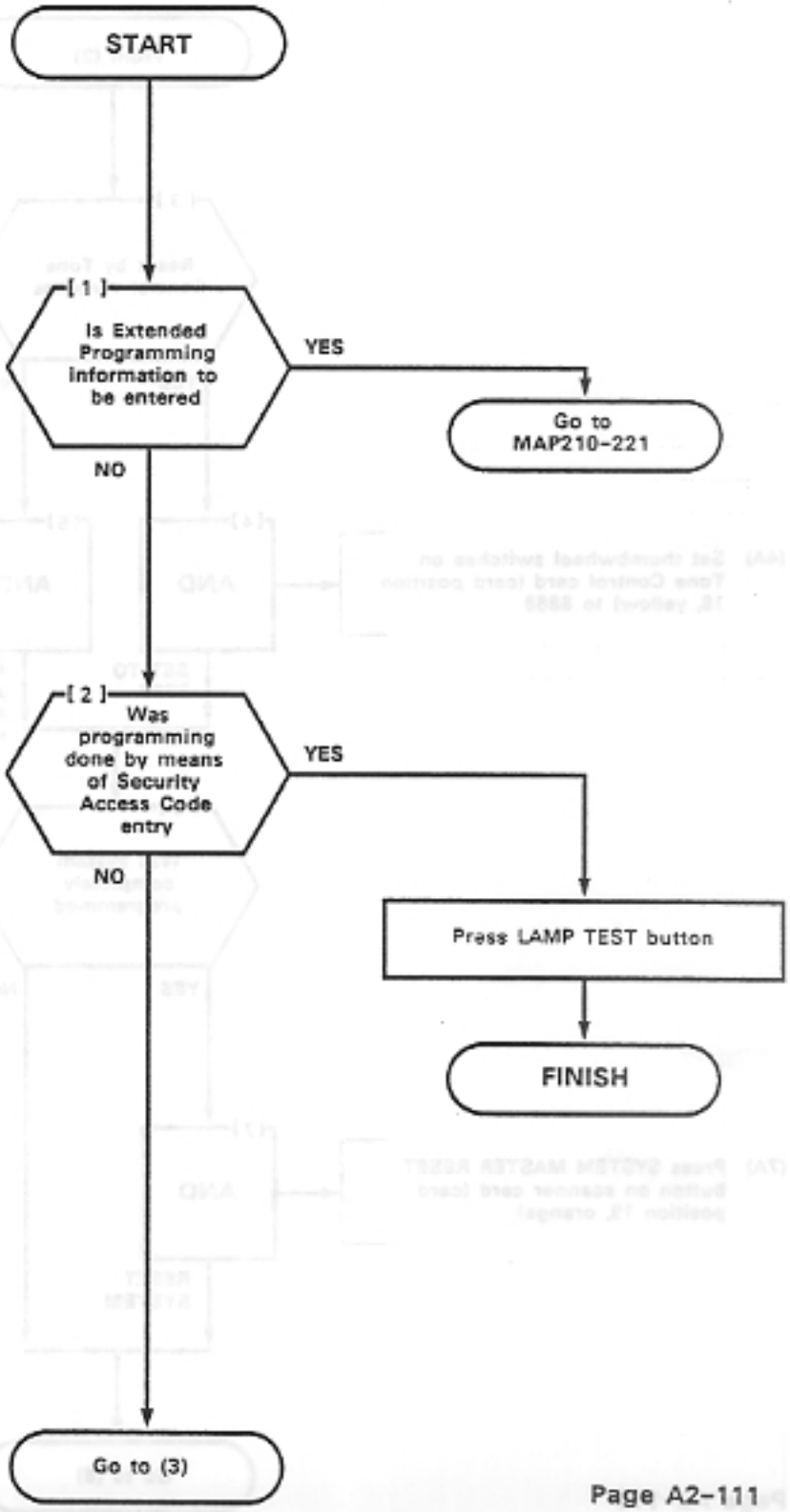

TERMINATING STANDARD PROGRAMMING MODE
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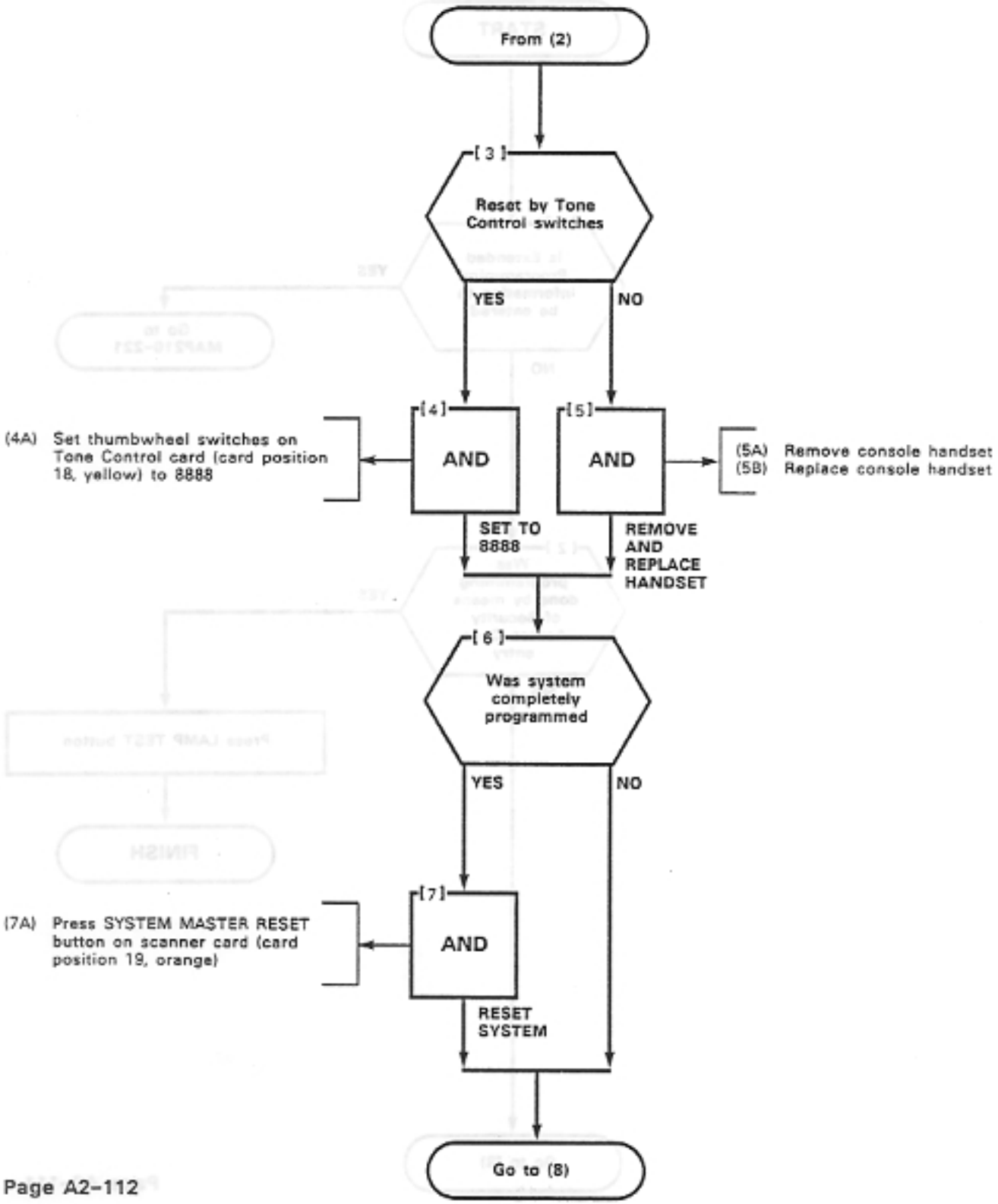

TERMINATING STANDARD PROGRAMMING MODE
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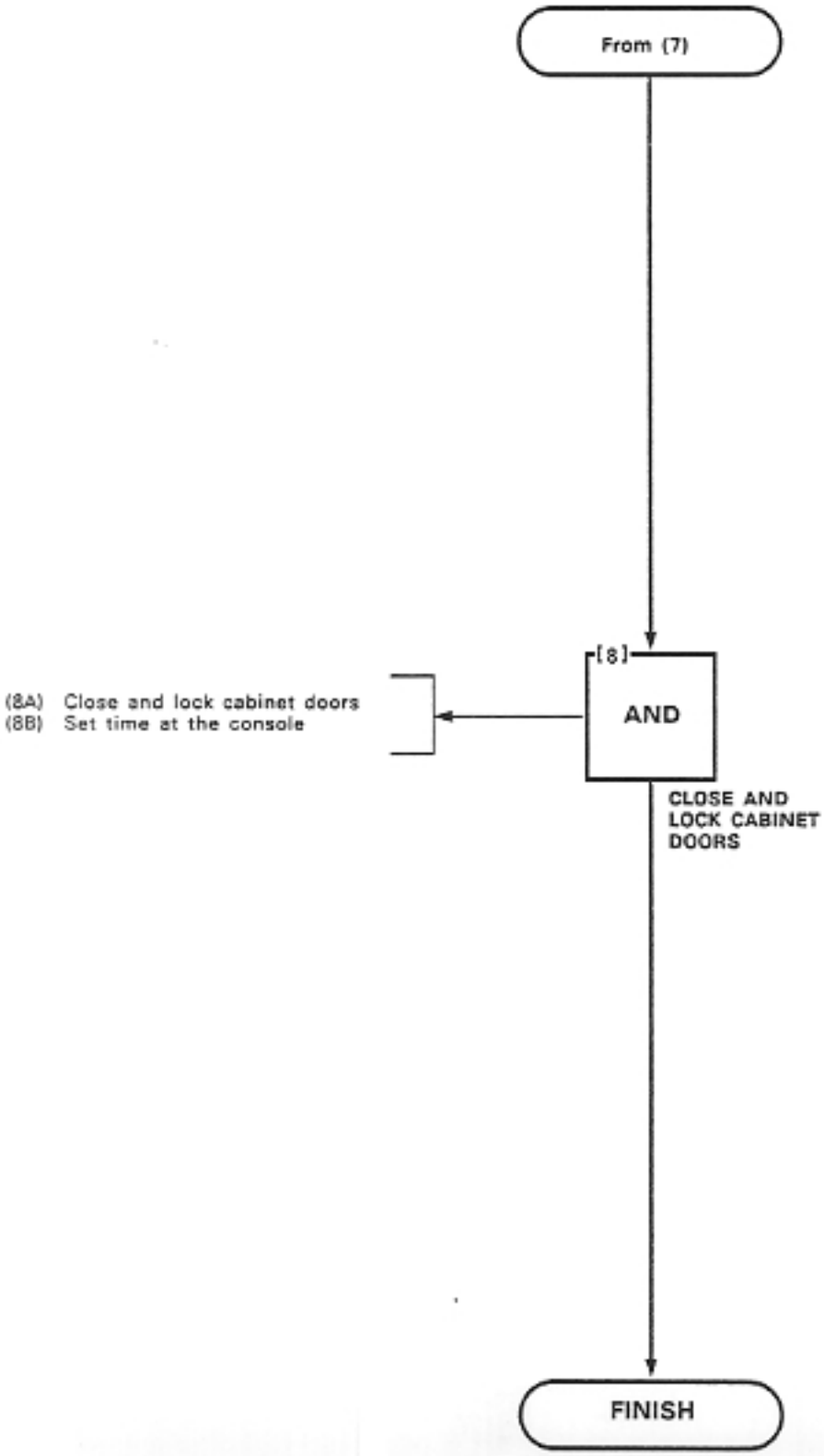

SELECTION OF EXTENDED PROGRAMMING
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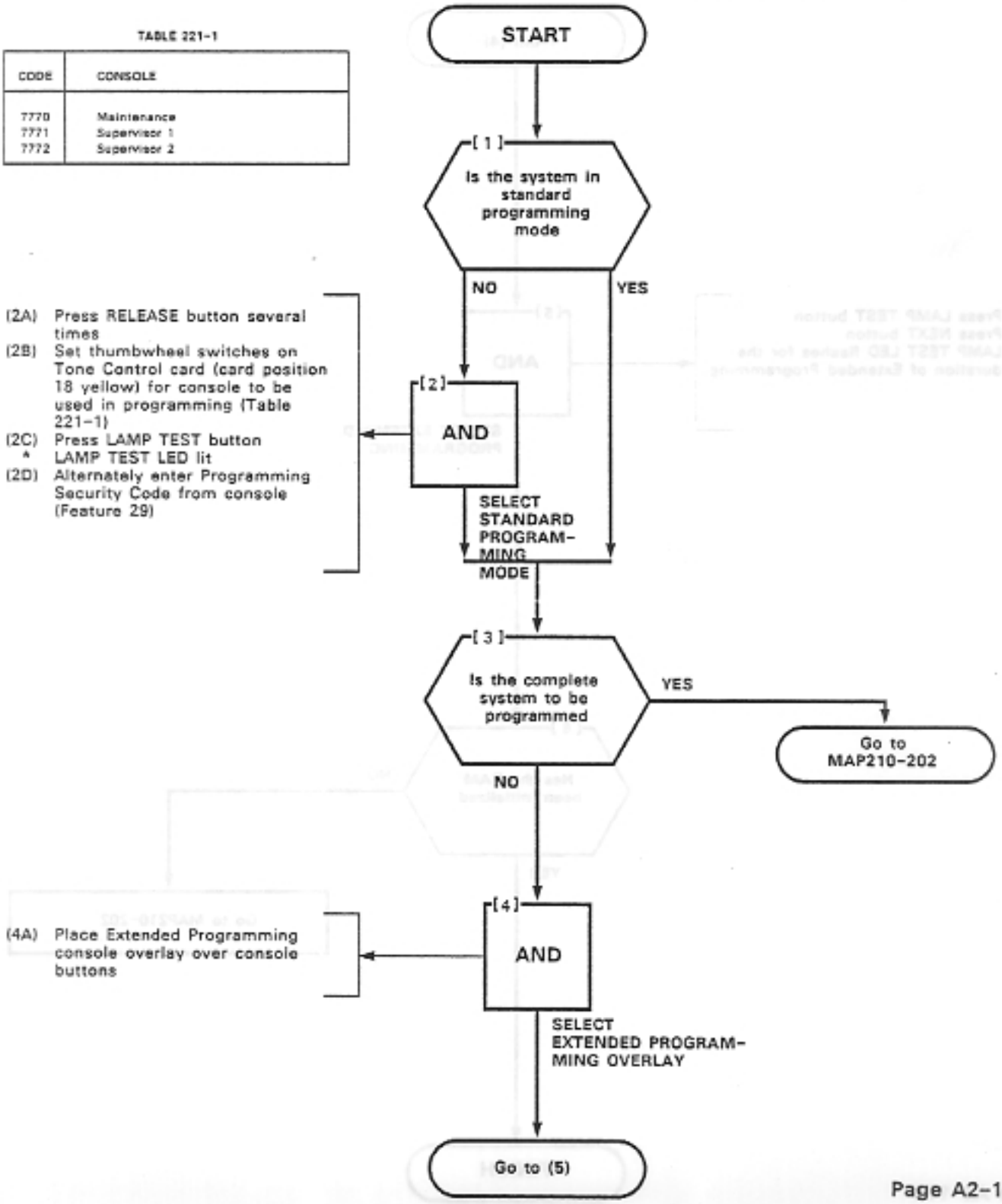
TABLE 221-1

CODE	CONSOLE
7770	Maintenance
7771	Supervisor 1
7772	Supervisor 2



SELECTION OF EXTENDED PROGRAMMING
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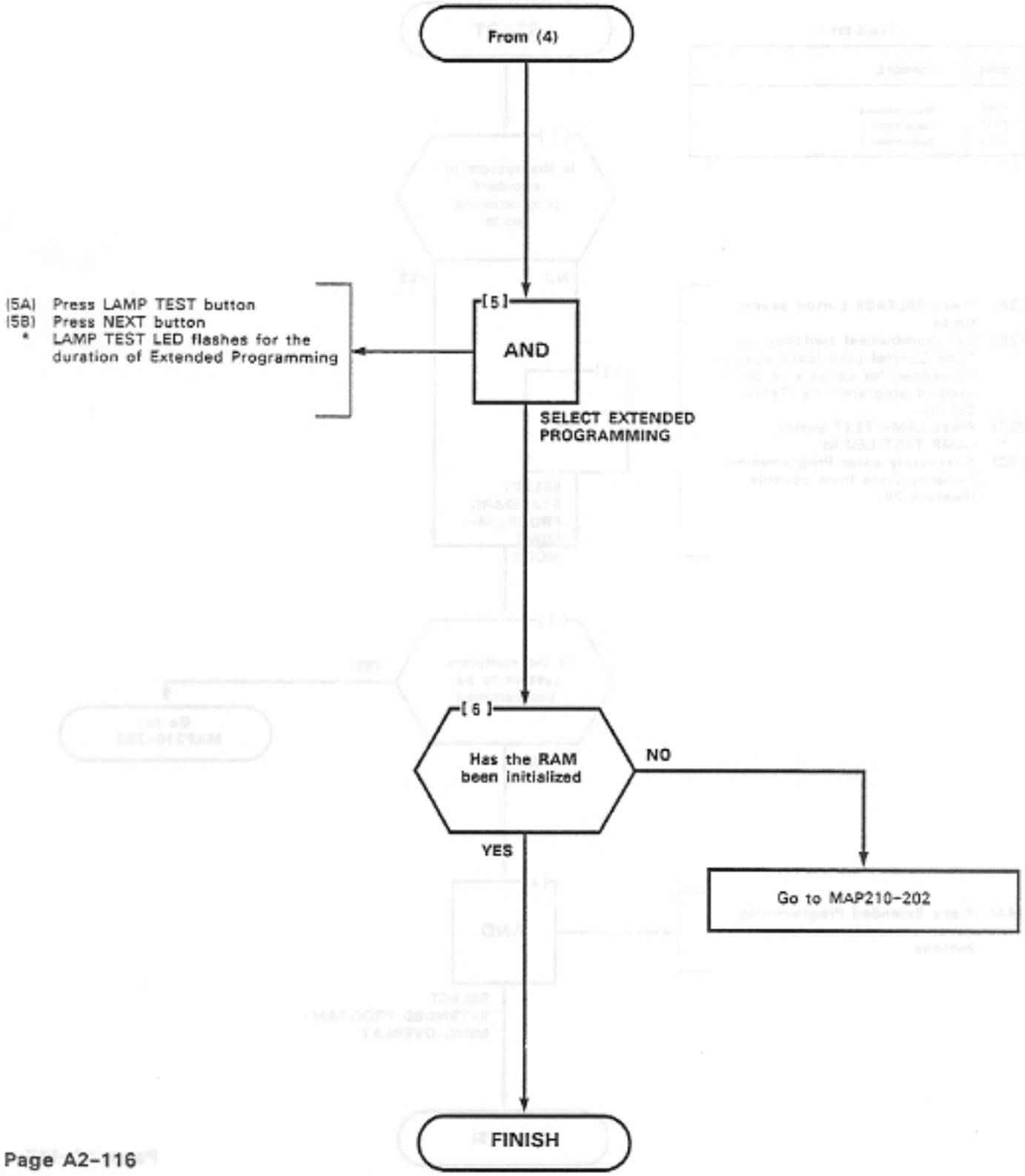

ABSORB PLAN
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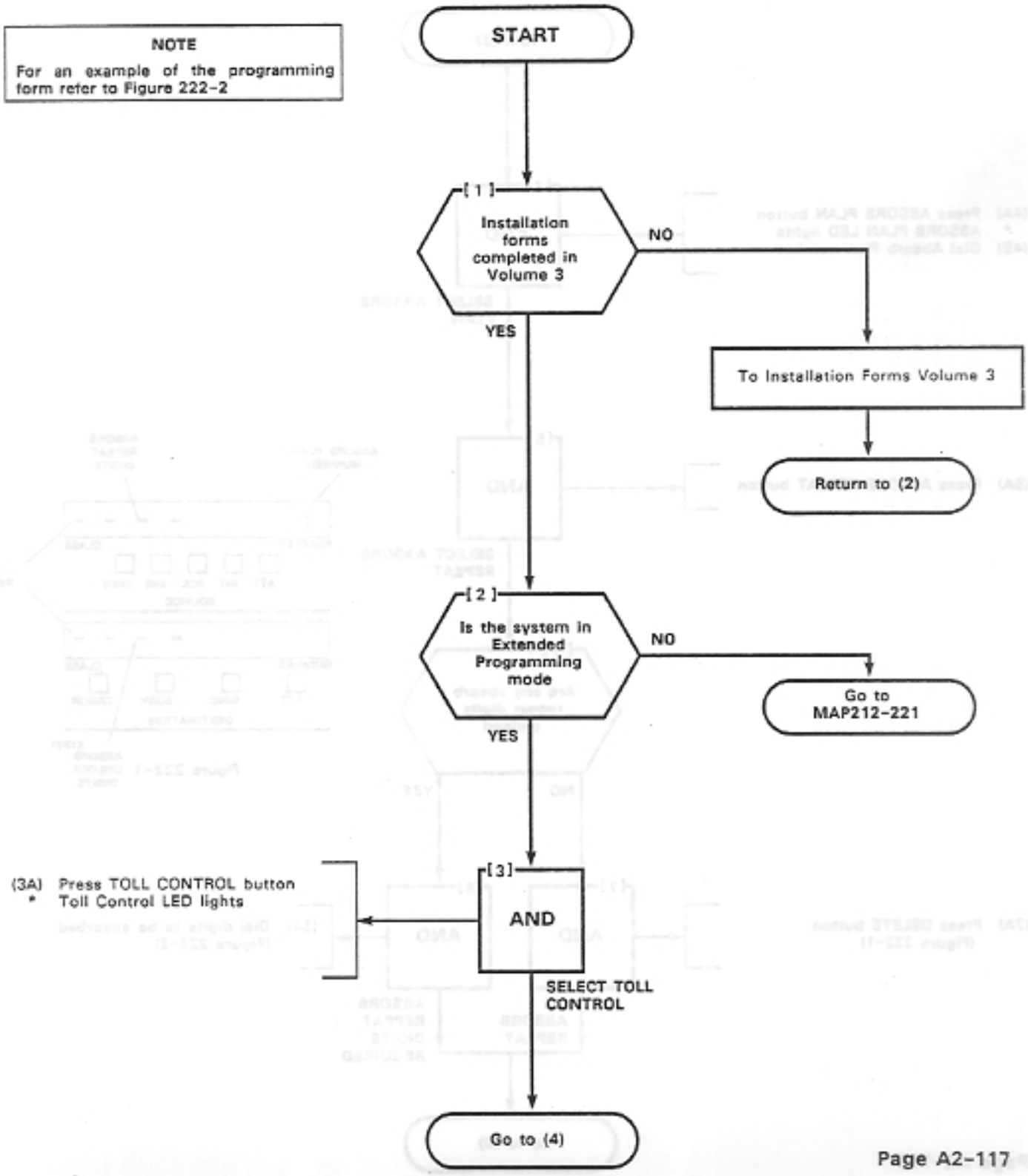
NOTE

For an example of the programming form refer to Figure 222-2



ABSORB PLAN
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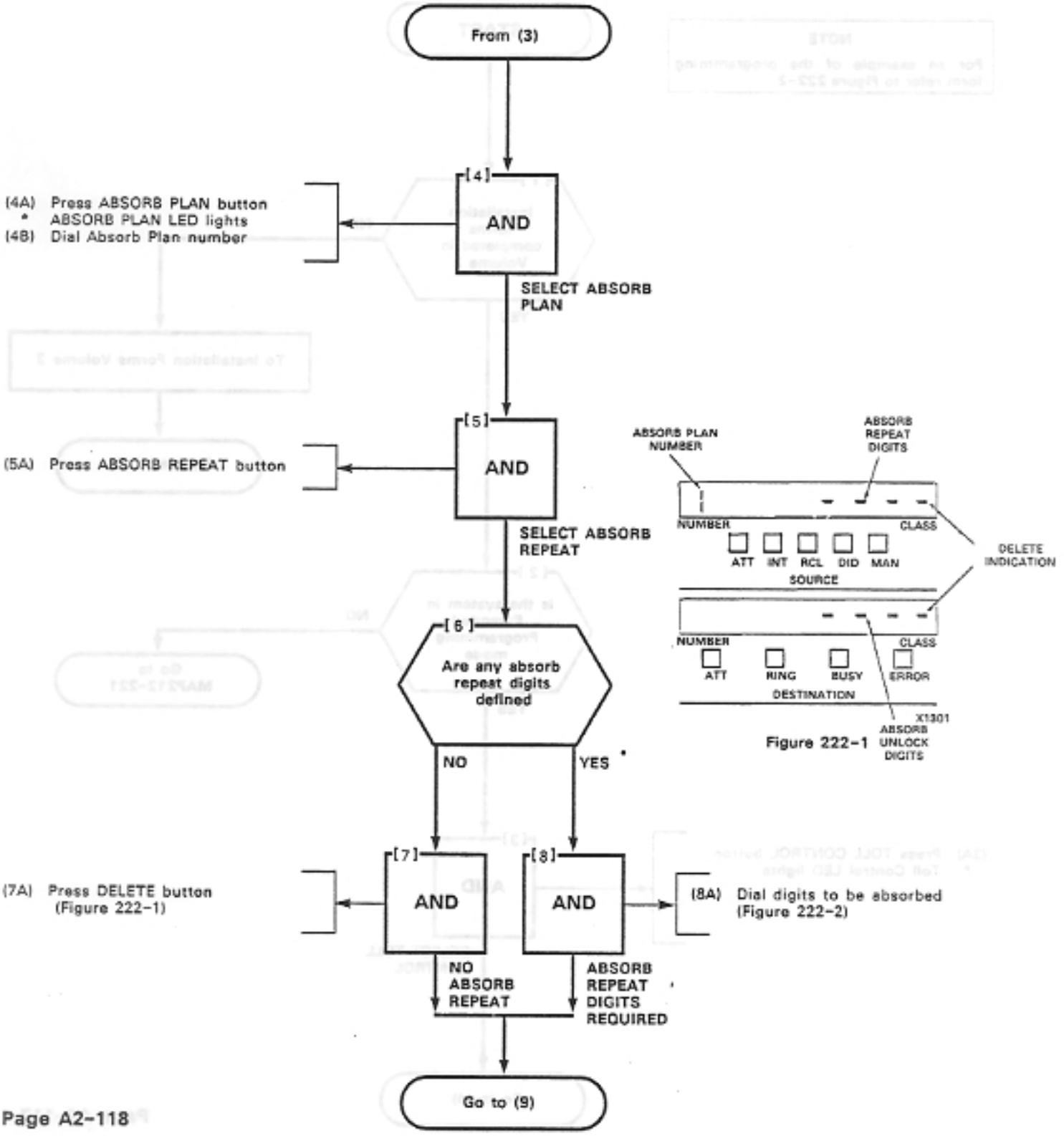

Figure 222-1

ABSORB PLAN
MAP210-222
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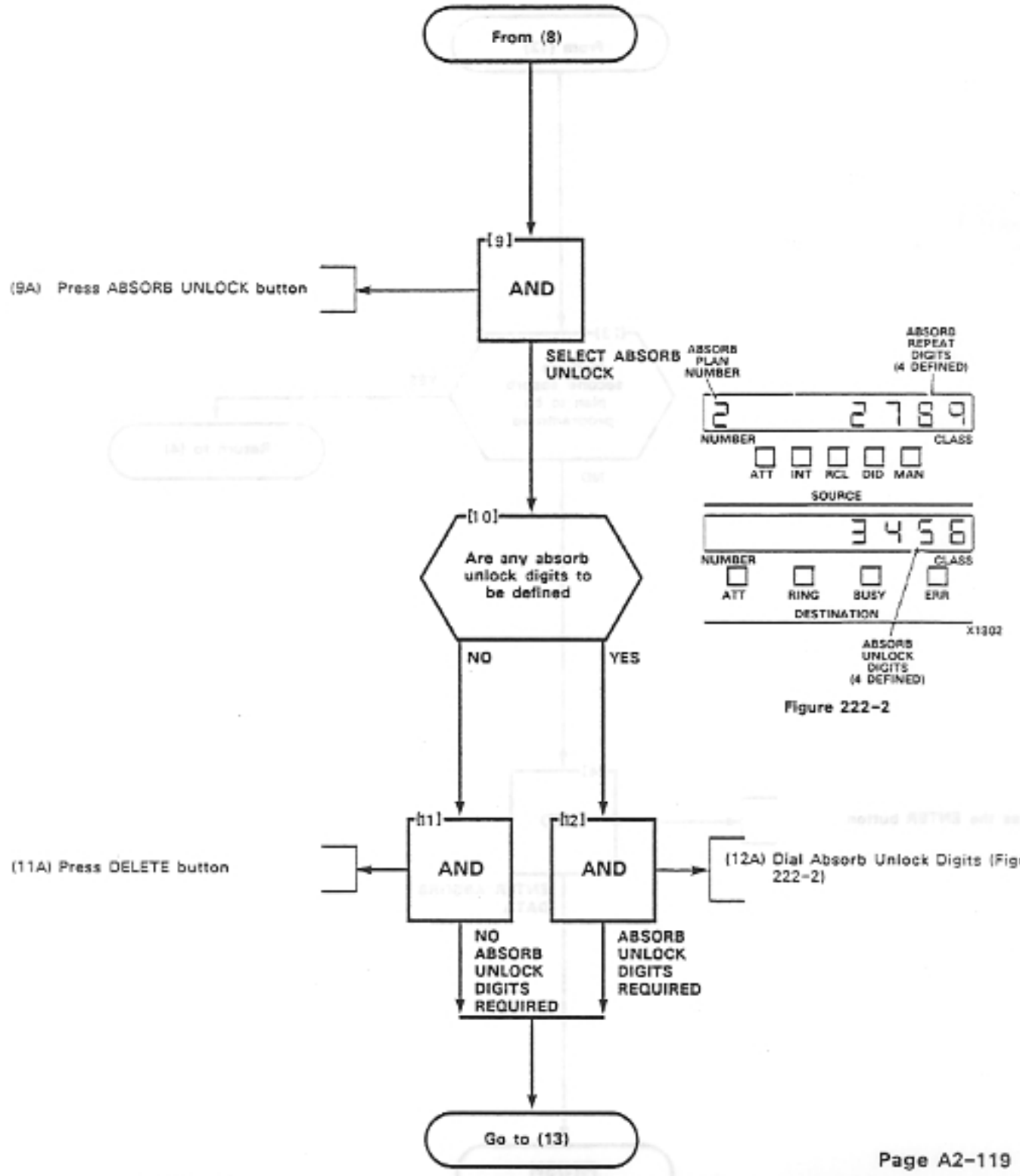

Figure 222-2

ABSORB PLAN
MAP210- 222
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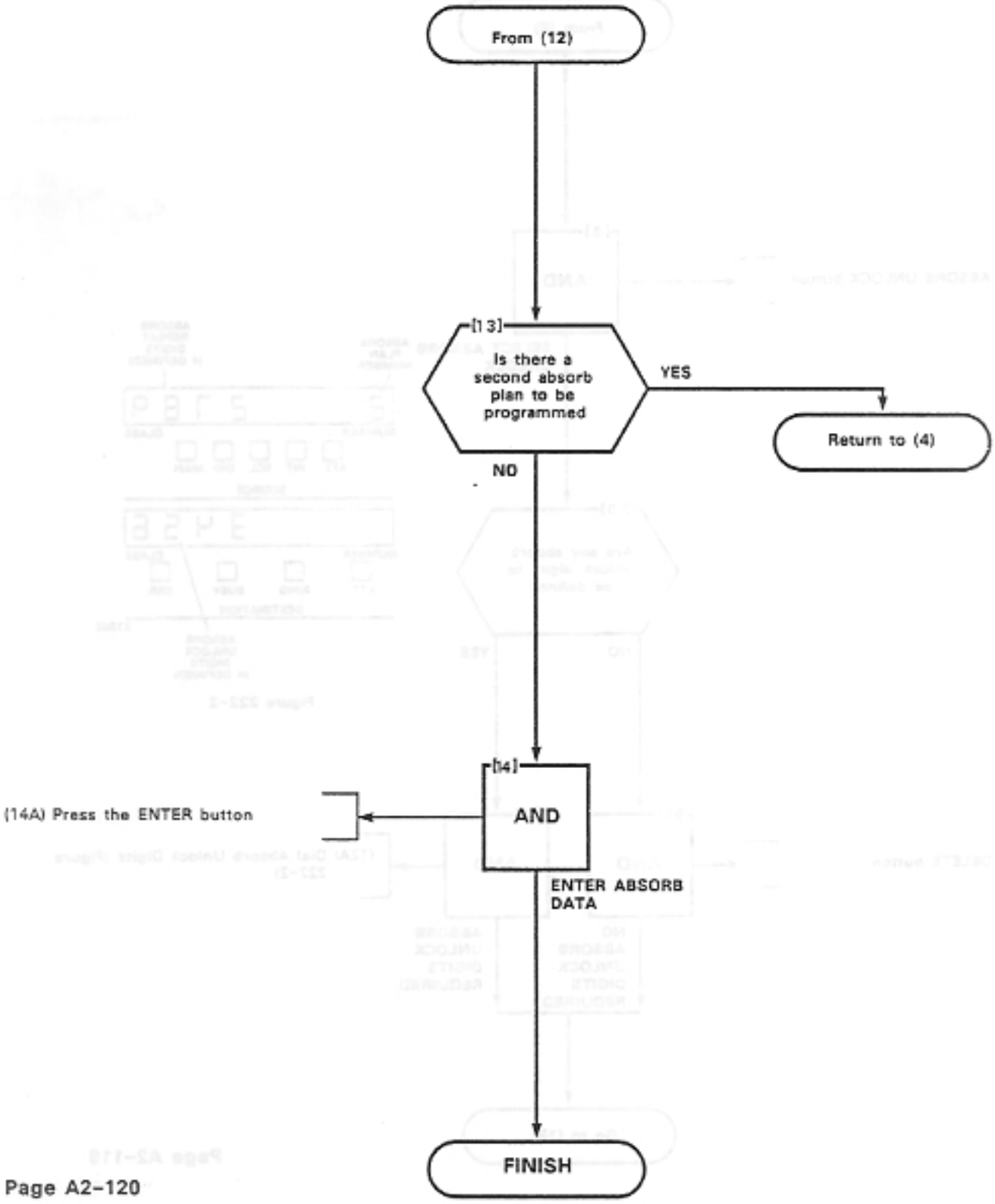


TOLL CONTROL

ABSORB PLAN

ABSORB PLAN DIAL 1 OR 2	DIAL REPEAT DIGITS (MAX 4) OR ABSORB REPEAT DELETE	DIAL UNLOCK DIGITS (MAX 4) OR ABSORB UNLOCK DELETE
ABSORB PLAN NUMBER 1		
ABSORB PLAN NUMBER 2		

ENTER

TO VIEW THE ABSORB PLANS:

ABSORB PLAN → NEXT → NEXT

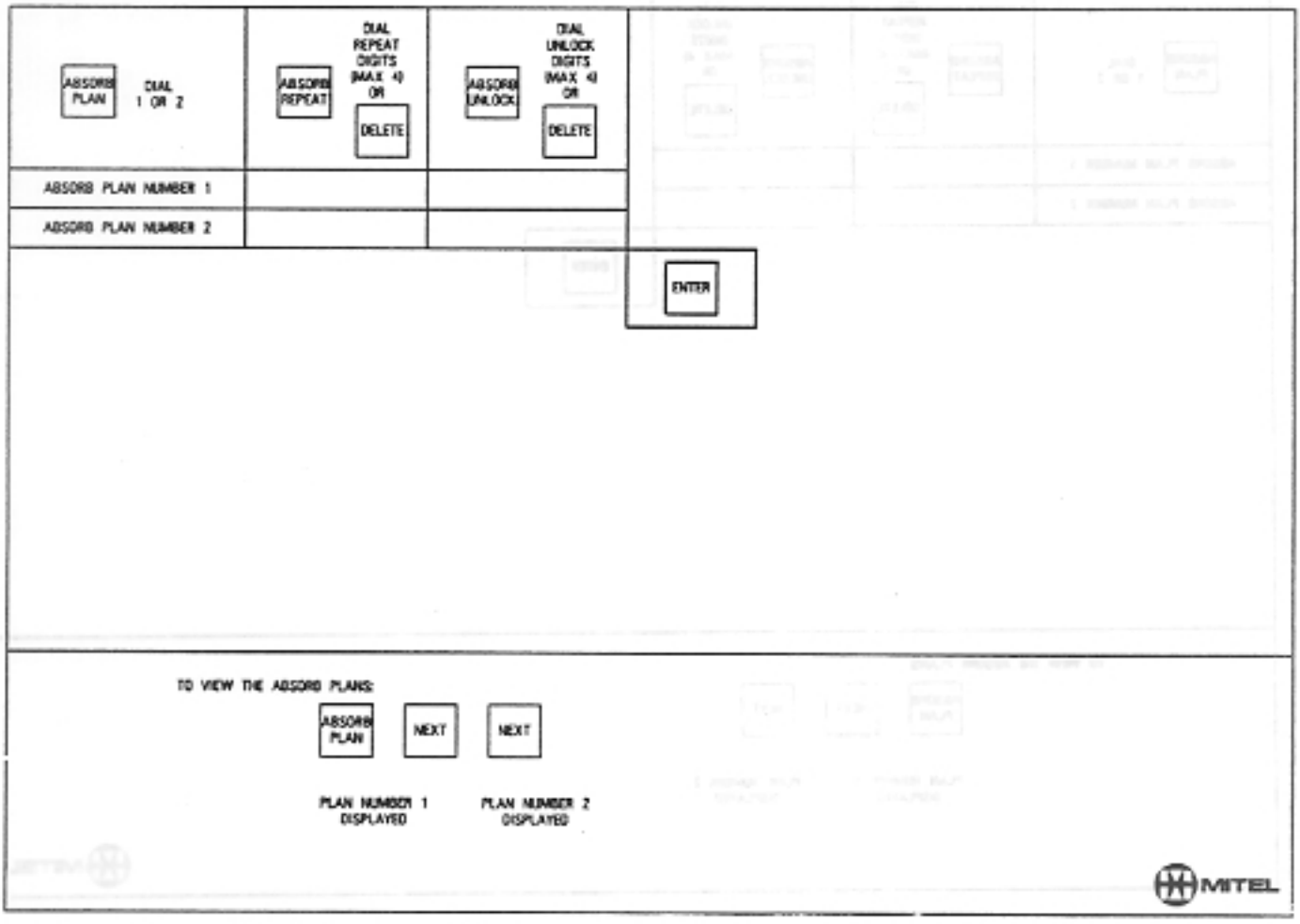
PLAN NUMBER 1 DISPLAYED

PLAN NUMBER 2 DISPLAYED

MITEL

TOLL CONTROL

ABSORB PLAN



CONTROL PLAN
MAP210-223
Issue 1, September 1983
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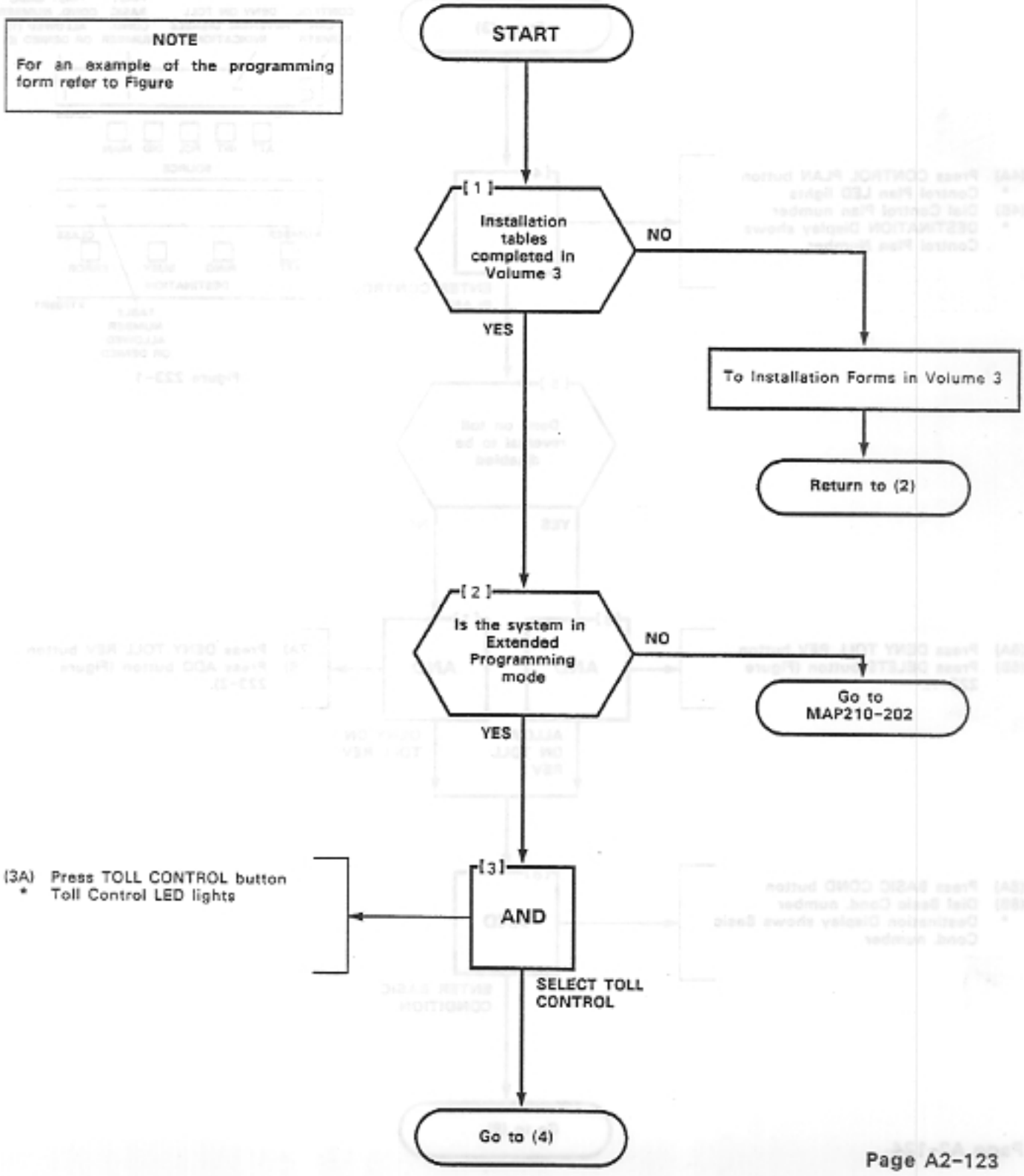
NOTE
For an example of the programming form refer to Figure



CONTROL PLAN
MAP210- 223
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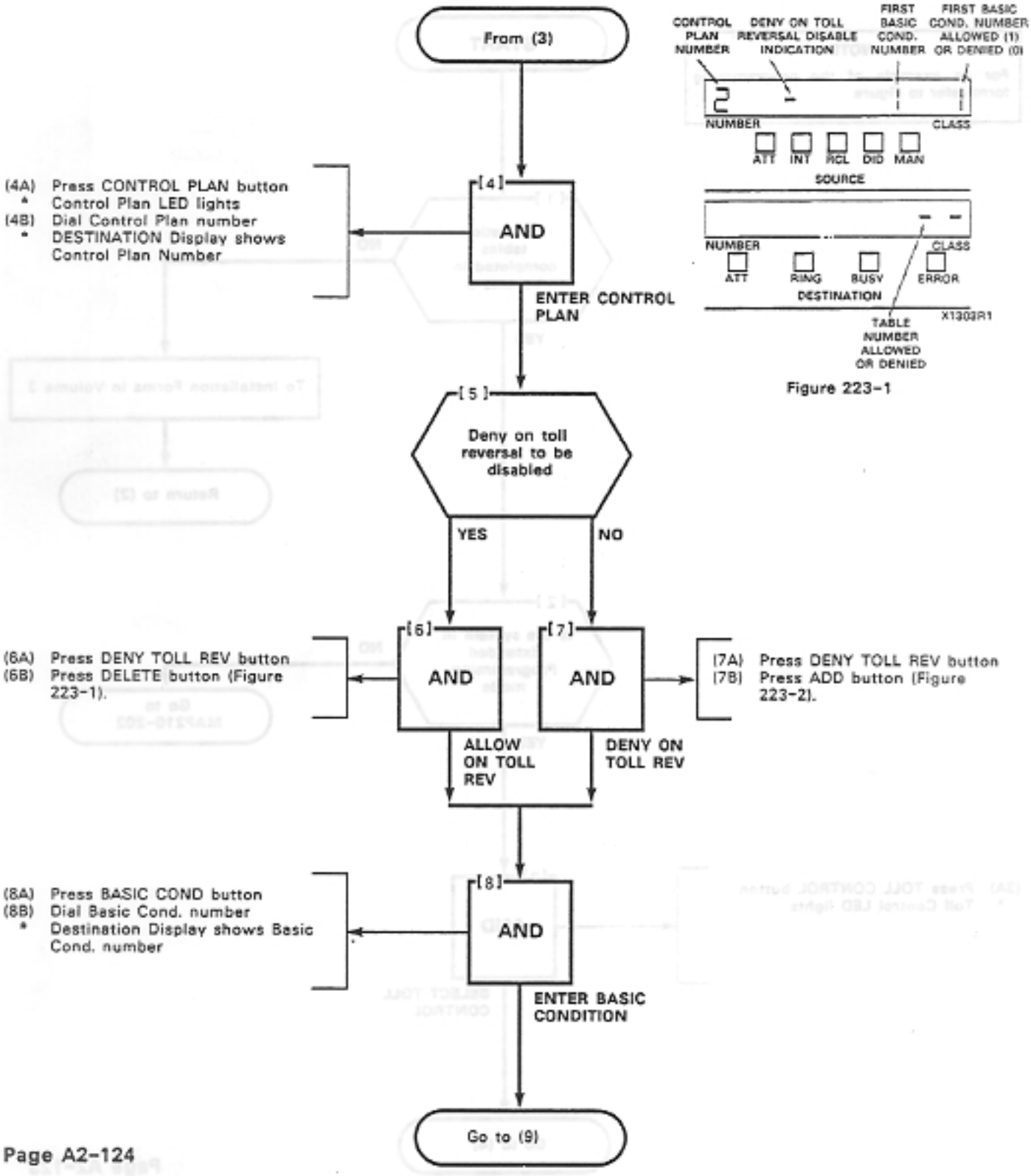

Figure 223-1

CONTROL PLAN
MAP210-223
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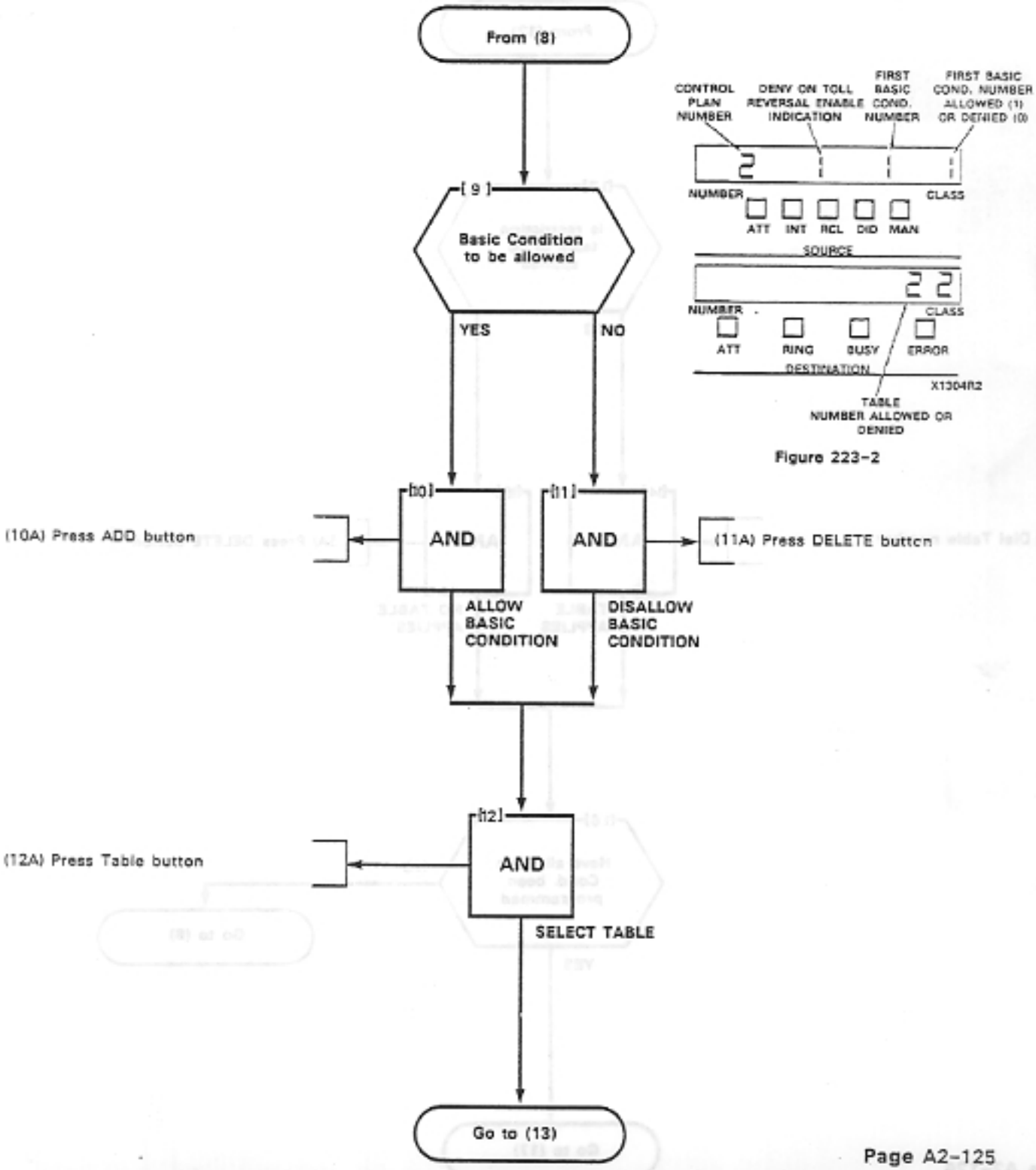

Figure 223-2

CONTROL PLAN
MAP210- 223
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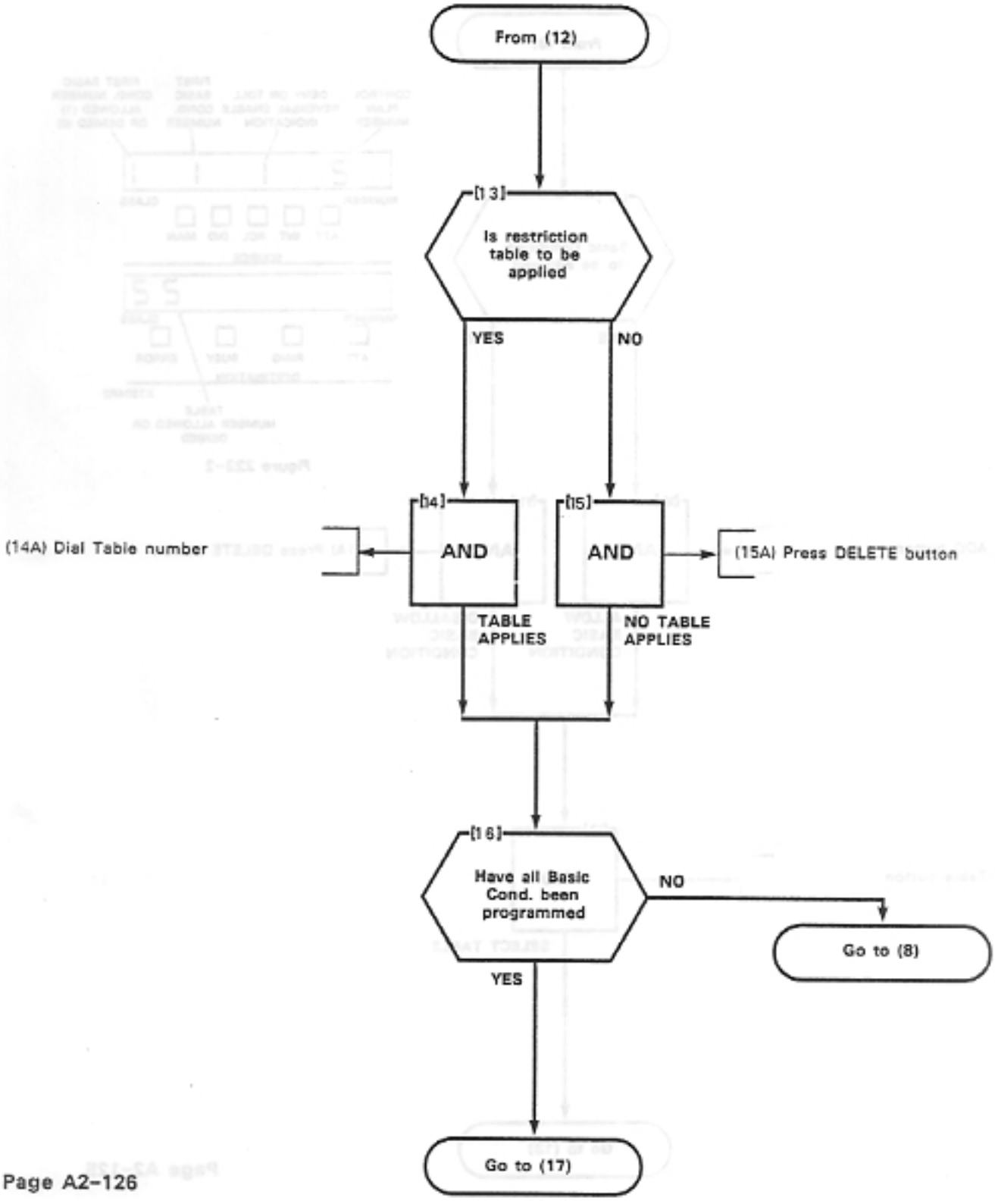

CONTROL PLAN
MAP210-223
Issue 1, September 1983
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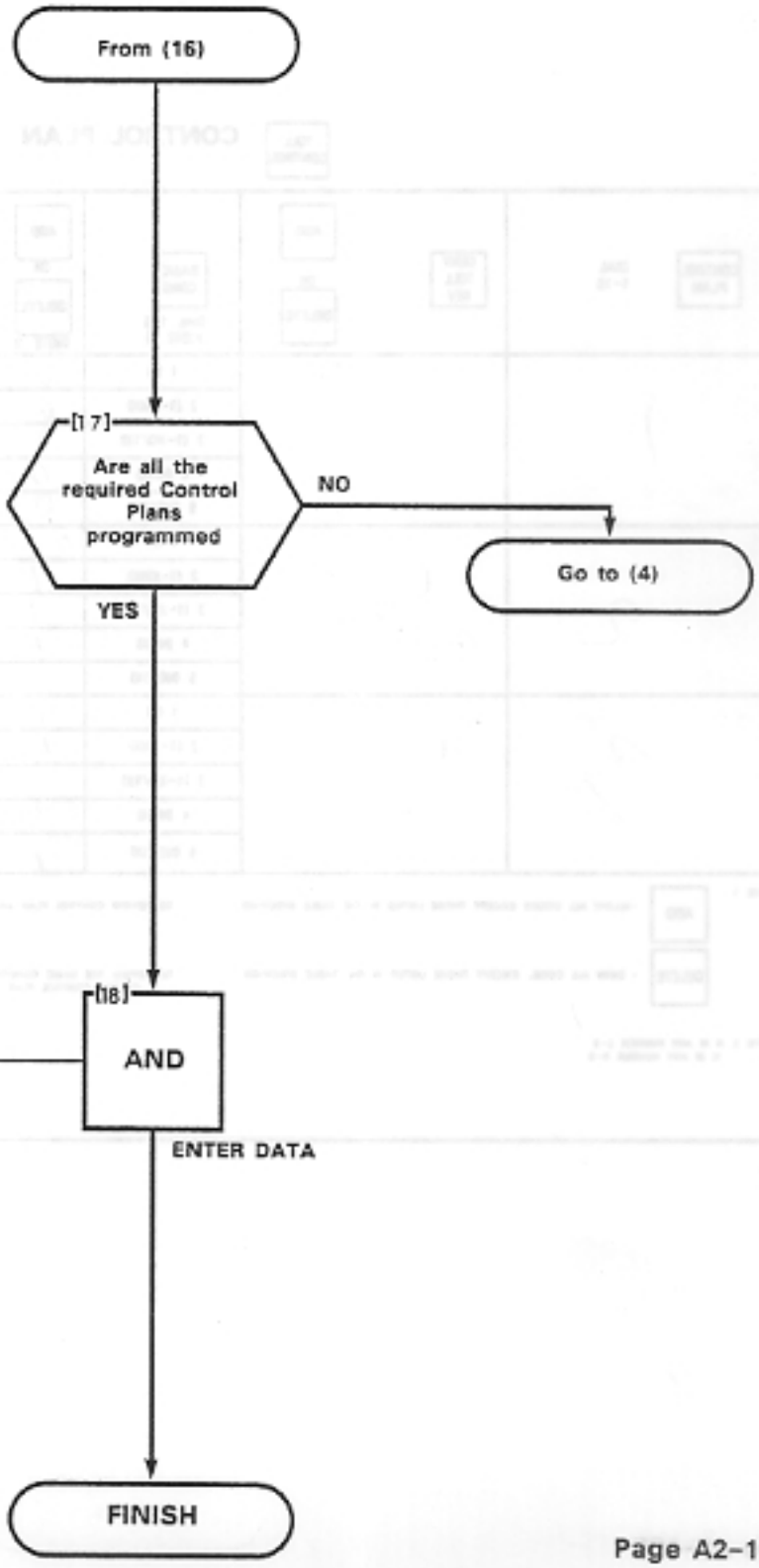


TOLL CONTROL — CONTROL PLAN

MITEL

CONTROL PLAN — DIAL 1-15	DENY TOLL REV — ADD / OR / DELETE	BASIC COND — DIAL 1-5 (NOTE 2)	ADD / OR / DELETE (NOTE 1)	TABLE — DIAL 1-9 (800 ENTRY) 21-23 (20 RANGED) $1-723(4 ENTRY) / OR / DELETE	
1	1 0 — —	1 (0)	0	— —	
		2 (1-XX0)	0	— —	
		3 (1-X0/1X)	0	— —	
		4 (NN0)	0	21	
		5 (N0/1X)	0	21	
2	1 0 52	1 (0)	0	52	
		2 (1-XX0)	1	51	
		3 (1-X0/1X)	1	51	
		4 (NN0)	1	23	
		5 (N0/1X)	1	23	
3	1 1 — —	1 (0)	1	— —	
		2 (1-XX0)	1	— —	
		3 (1-X0/1X)	1	— —	
		4 (NN0)	1	— —	ENTER
		5 (N0/1X)	1	— —	

NOTE 1:
- ADD - ALLOW ALL CODES EXCEPT THOSE LISTED IN THE TABLE SPECIFIED
- DELETE - DENY ALL CODES EXCEPT THOSE LISTED IN THE TABLE SPECIFIED

NOTE 2: N IS ANY NUMBER 2-9; X IS ANY NUMBER 0-9

TO REVIEW CONTROL PLAN ASSIGNMENTS: CONTROL PLAN (DIAL 1-15) → DISPLAY ENTRY → NEXT

TO REVIEW THE BASIC CONDITIONS OF THE CONTROL PLAN: CONTROL PLAN (DIAL 1-15) → BASIC COND (DIAL 1) → DISPLAY ENTRY (DISPLAY BASIC CONDITION 1) → NEXT (DISPLAY BASIC CONDITION 2) → NEXT (DISPLAY BASIC CONDITION 3)

TOLL CONTROL

CONTROL PLAN

MITEL

CONTROL PLAN DIAL 1-15	DENY TOLL REV — ADD OR DELETE	BASIC COND DIAL 1-5 (NOTE 2)	ADD OR DELETE (NOTE 1)	TABLE — DIAL 1-9 (ADD ENTRY) 21-33 (2D RANGE) 51-7314 (ENTRY) OR DELETE	
1-15	Same	1 (0)	/	— —	
		2 (1-XXX)	/	— —	
		3 (1-XX/1X)	/	— —	
		4 (NXX)	/	— —	
		5 (NX/1X)	/		
		1 (0)		—	
		2 (1-XXX)			
		3 (1-XX/1X)			
		4 (NXX)			
		5 (NX/1X)			
		1 (0)			
		2 (1-XXX)			
		3 (1-XX/1X)			
		4 (NXX)			
		5 (NX/1X)			ENTER

NOTE 1
- ADD - ALLOW ALL CODES EXCEPT THOSE LISTED IN THE TABLE SPECIFIED
- DELETE - DENY ALL CODES EXCEPT THOSE LISTED IN THE TABLE SPECIFIED

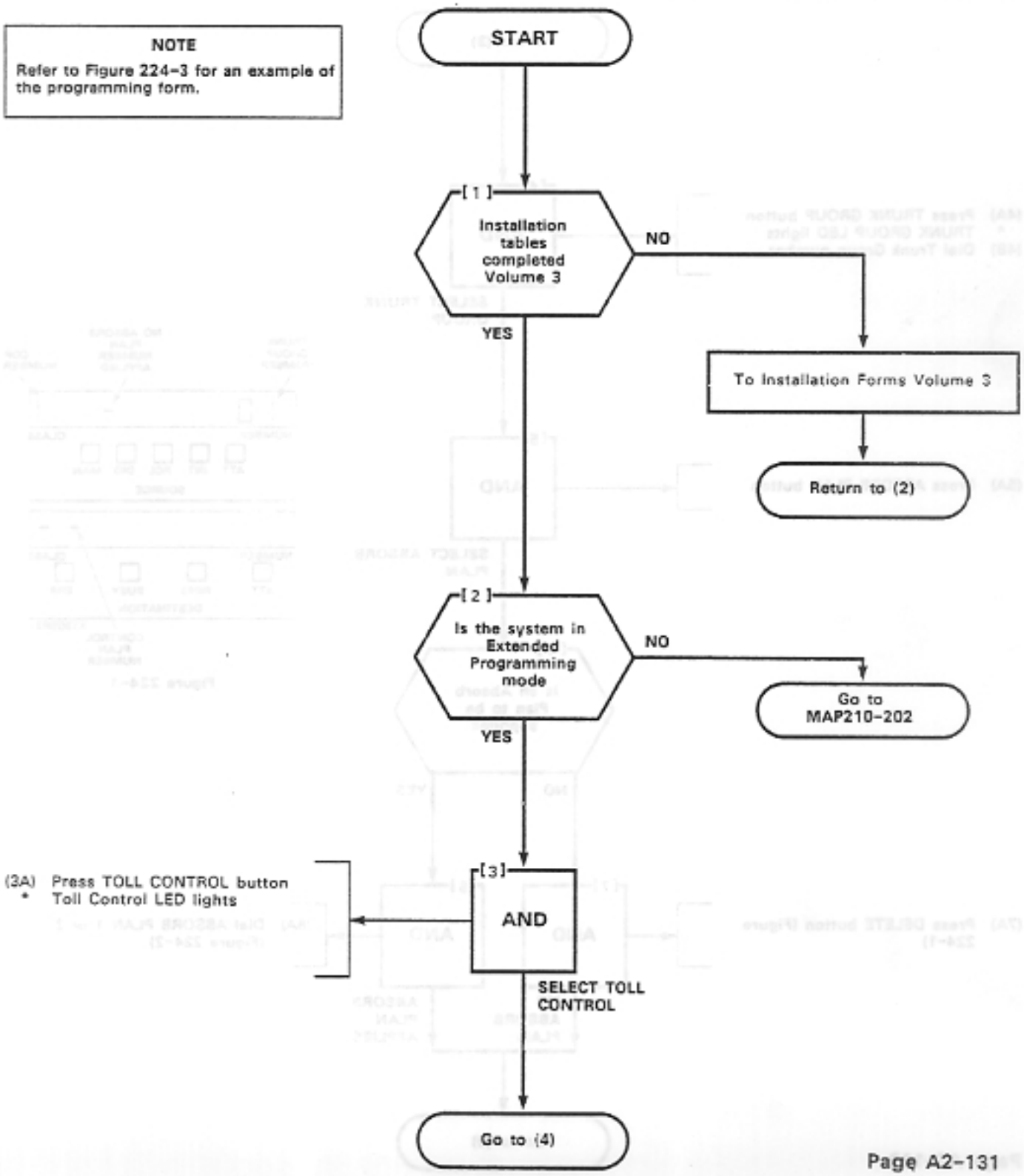
NOTE 2. N IS ANY NUMBER 2-9
X IS ANY NUMBER 0-9

TO REVIEW CONTROL PLAN ASSIGNMENTS: CONTROL PLAN — DIAL 1-15 — DISPLAY ENTRY — NEXT

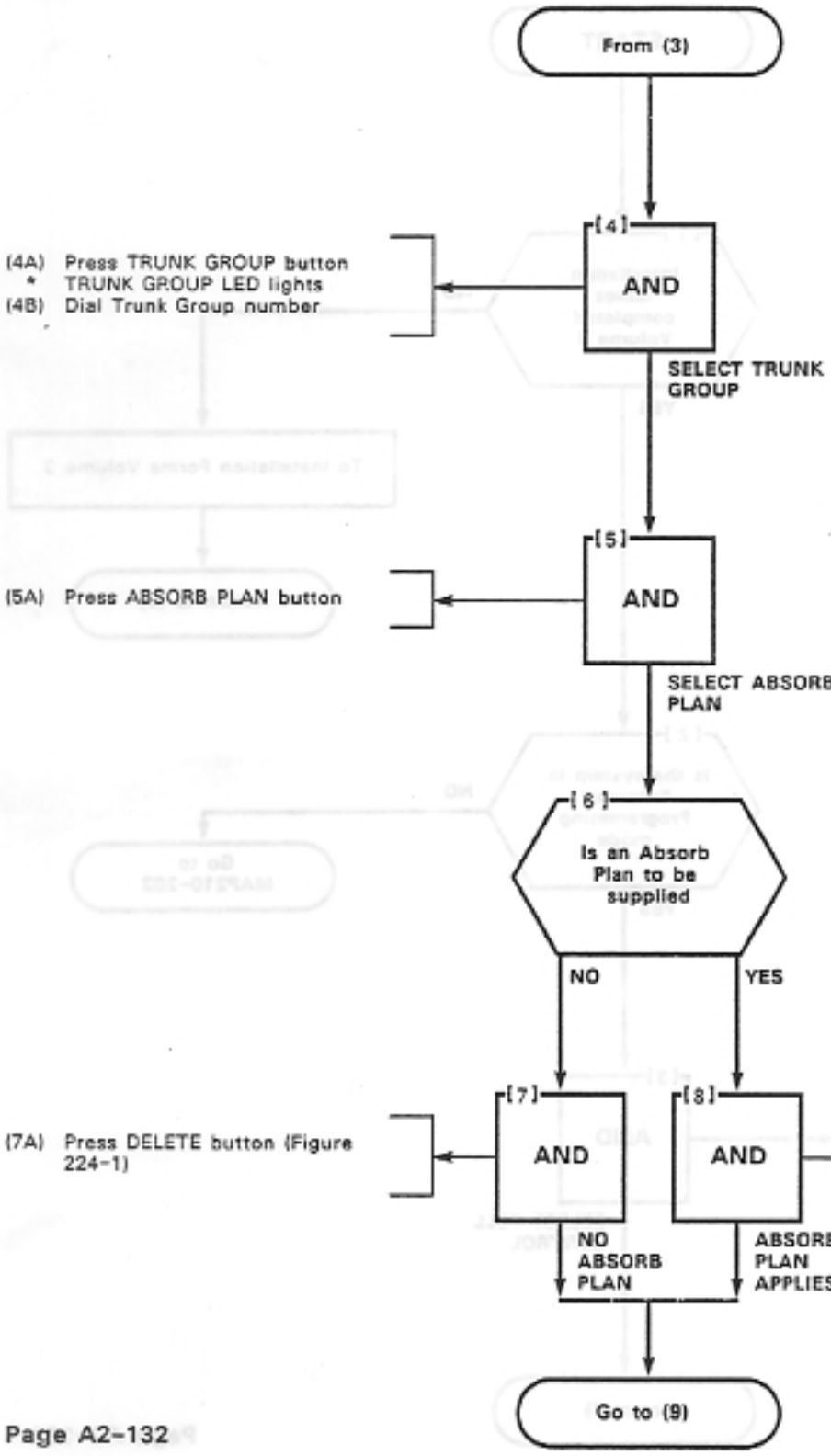
TO REVIEW THE BASIC CONDITIONS OF THE CONTROL PLAN: CONTROL PLAN — DIAL 1-15 — BASIC COND — DISPLAY BASIC CONDITION 1 — DIAL 1 — DISPLAY ENTRY — DISPLAY BASIC CONDITION 2 — NEXT — DISPLAY BASIC CONDITION 3 — NEXT

TRUNK GROUP CLASS OF RESTRICTION
MAP210-224
Issue 1, September 1983
Sheet 1 of 6

NOTE
Refer to Figure 224-3 for an example of the programming form.



TRUNK GROUP CLASS OF RESTRICTION
MAP210- 224
Issue 1, September 1983
Sheet 2 of 6



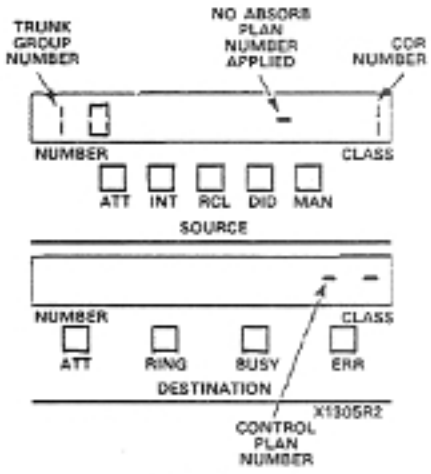


Figure 224-1

TRUNK GROUP CLASS OF RESTRICTION
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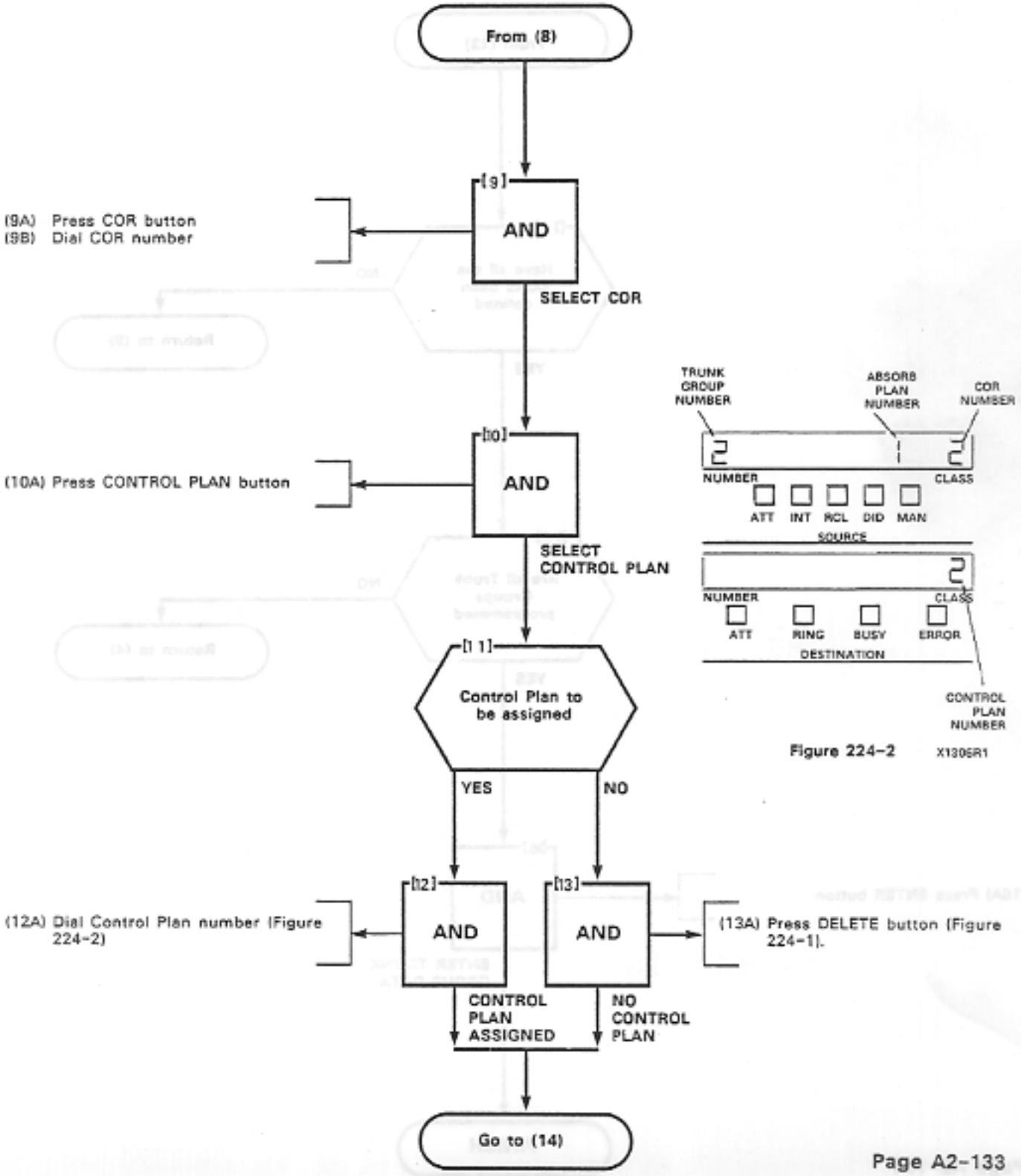

Figure 224-2 X1306R1

TRUNK GROUP CLASS OF RESTRICTION
MAP210- 224
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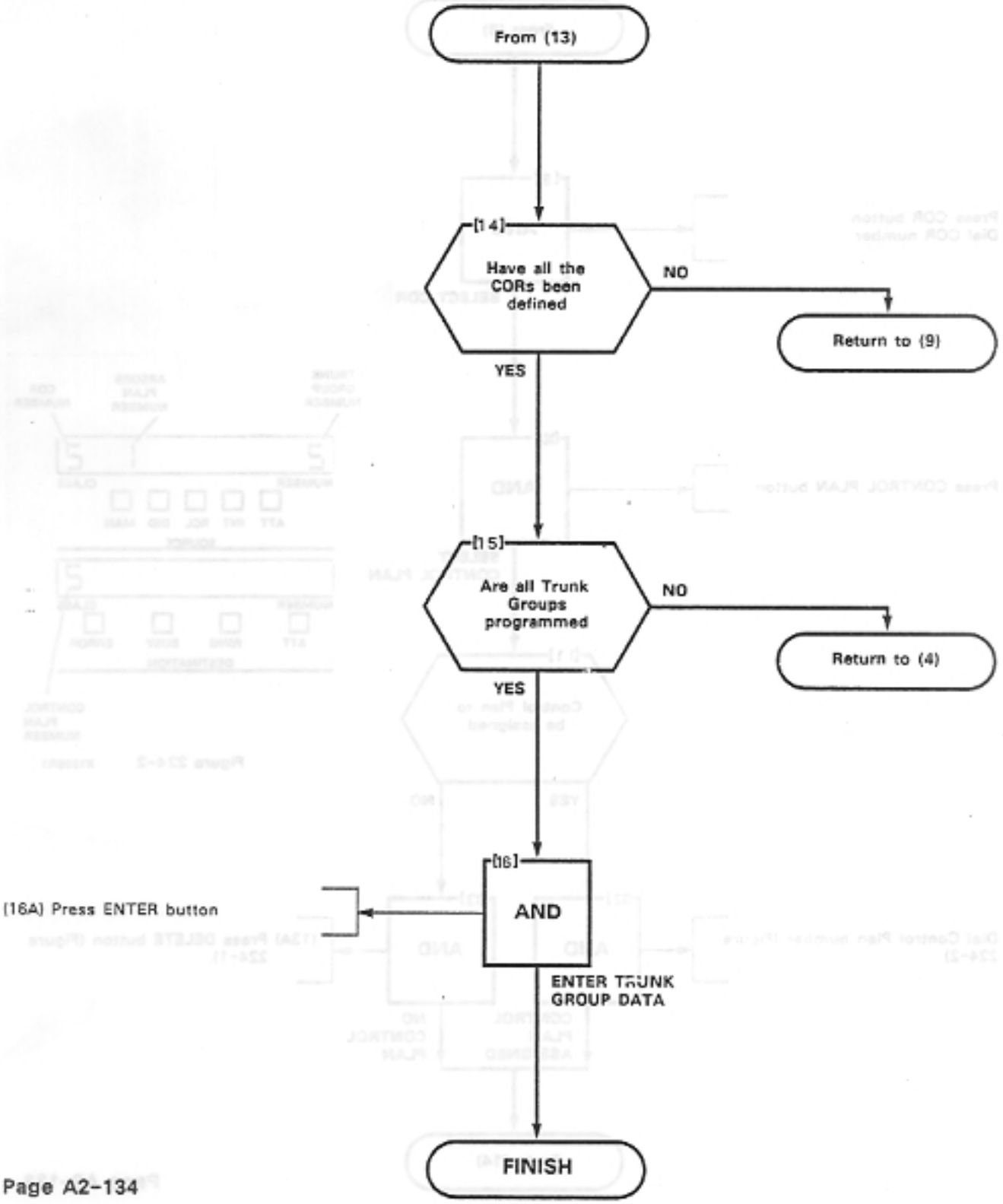


CLASS OF RESTRICTION

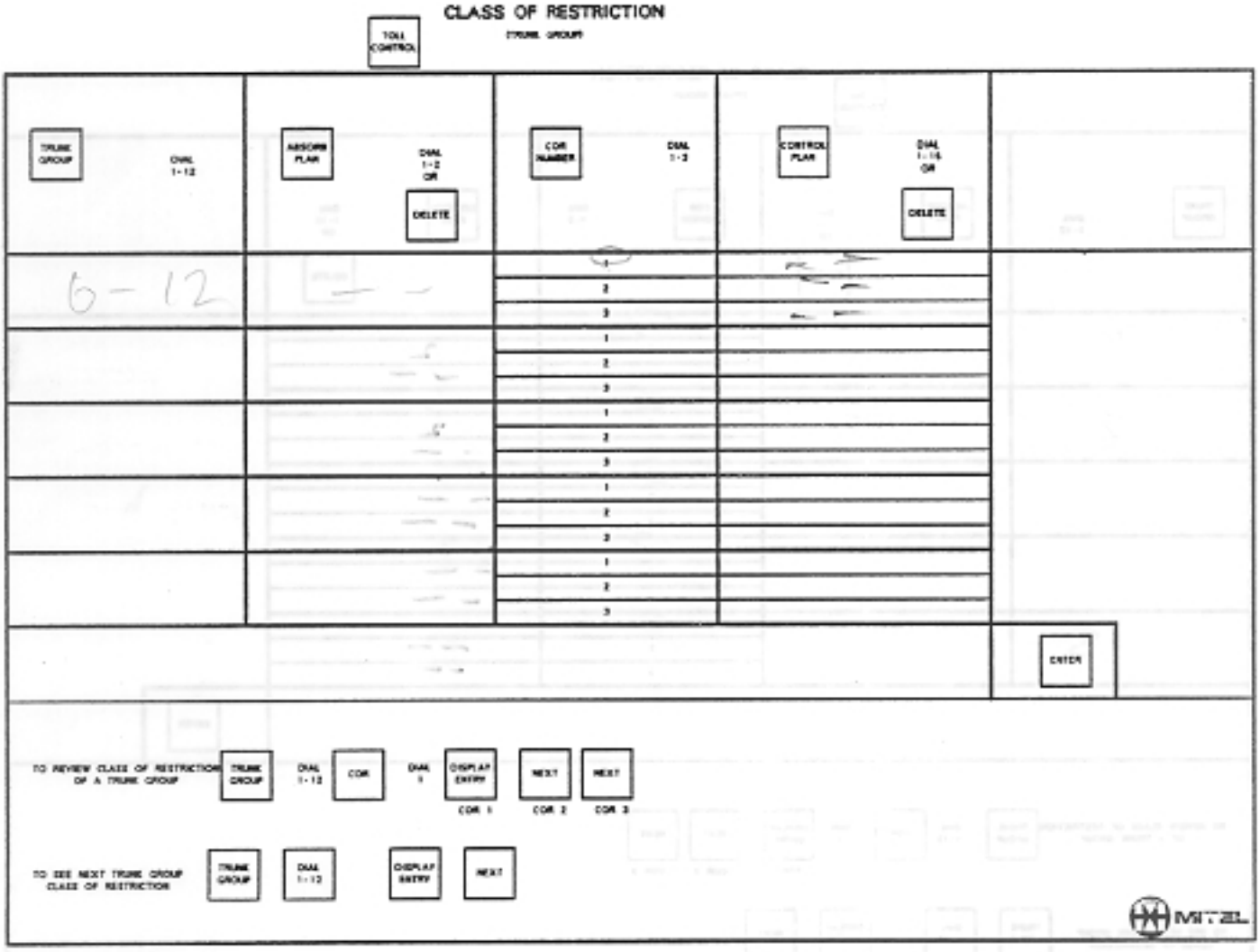
(TRUNK GROUP)

TOLL CONTROL

TRUNK GROUP DIAL 1-12	ABSORB PLAN DIAL 1-2 OR DELETE	COR NUMBER DIAL 1-3	CONTROL PLAN DIAL 1-15 OR DELETE	
1	—	0 1 2 3	1 2 — —	
2	—	0 1 2 3	1 2 — —	
3	—	0 1 2 3	— — — — — —	
4	—	0 1 2 3	— — — — — —	
5	—	0 1 2 3	— — — — — —	
				ENTER

TO REVIEW CLASS OF RESTRICTION OF A TRUNK GROUP: TRUNK GROUP — DIAL 1-12 — COR — DIAL 1 — DISPLAY ENTRY (COR 1) — NEXT (COR 2) — NEXT (COR 3)

TO SEE NEXT TRUNK GROUP CLASS OF RESTRICTION: TRUNK GROUP — DIAL 1-12 — DISPLAY ENTRY — NEXT

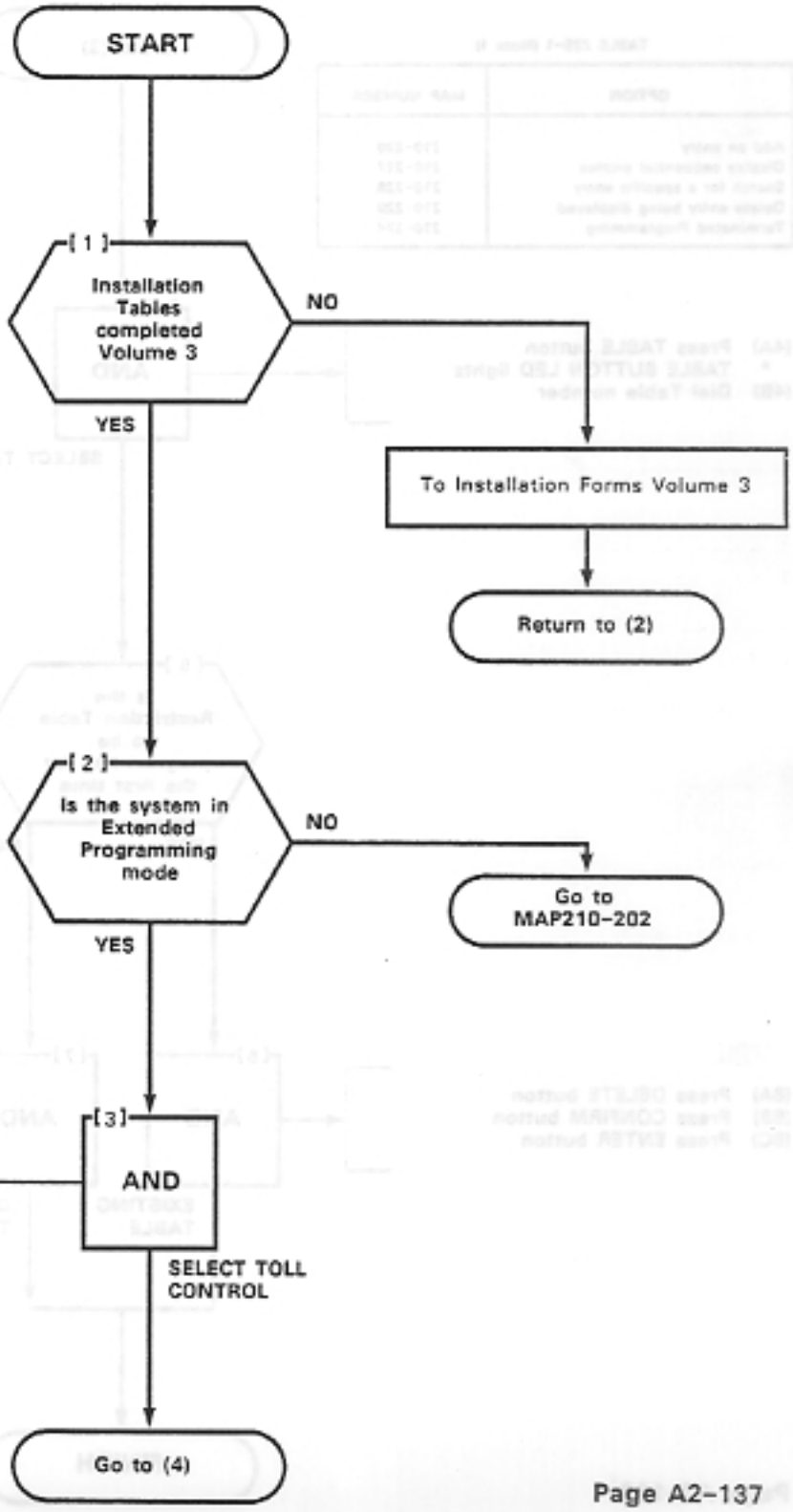

CLASS OF RESTRICTION
TOLL CONTROL
TRUNK GROUP
DIAL 1-12
ABSORB PLAN
DIAL 1-2 OR
DELETE
COR NUMBER
DIAL 1-3
CONTROL PLAN
DIAL 1-16 OR
DELETE
6-12
ENTER
TO REVIEW CLASS OF RESTRICTION OF A TRUNK GROUP
TRUNK GROUP
DIAL 1-12
COR
DIAL 1
DISPLAY ENTRY
NEXT
NEXT
COR 1
COR 2
COR 3
TO SEE NEXT TRUNK GROUP CLASS OF RESTRICTION
TRUNK GROUP
DIAL 1-12
DISPLAY ENTRY
NEXT
MITEL

RESTRICTION TABLES
MAP210-225
Issue 1, September 1983
Sheet 1 of 8

NOTE 1
Refer to Figures 225-1, 225-2 and 225-3 for an example of the programming form.

NOTE 2
If the wrong number is entered by mistake go back to step 3.

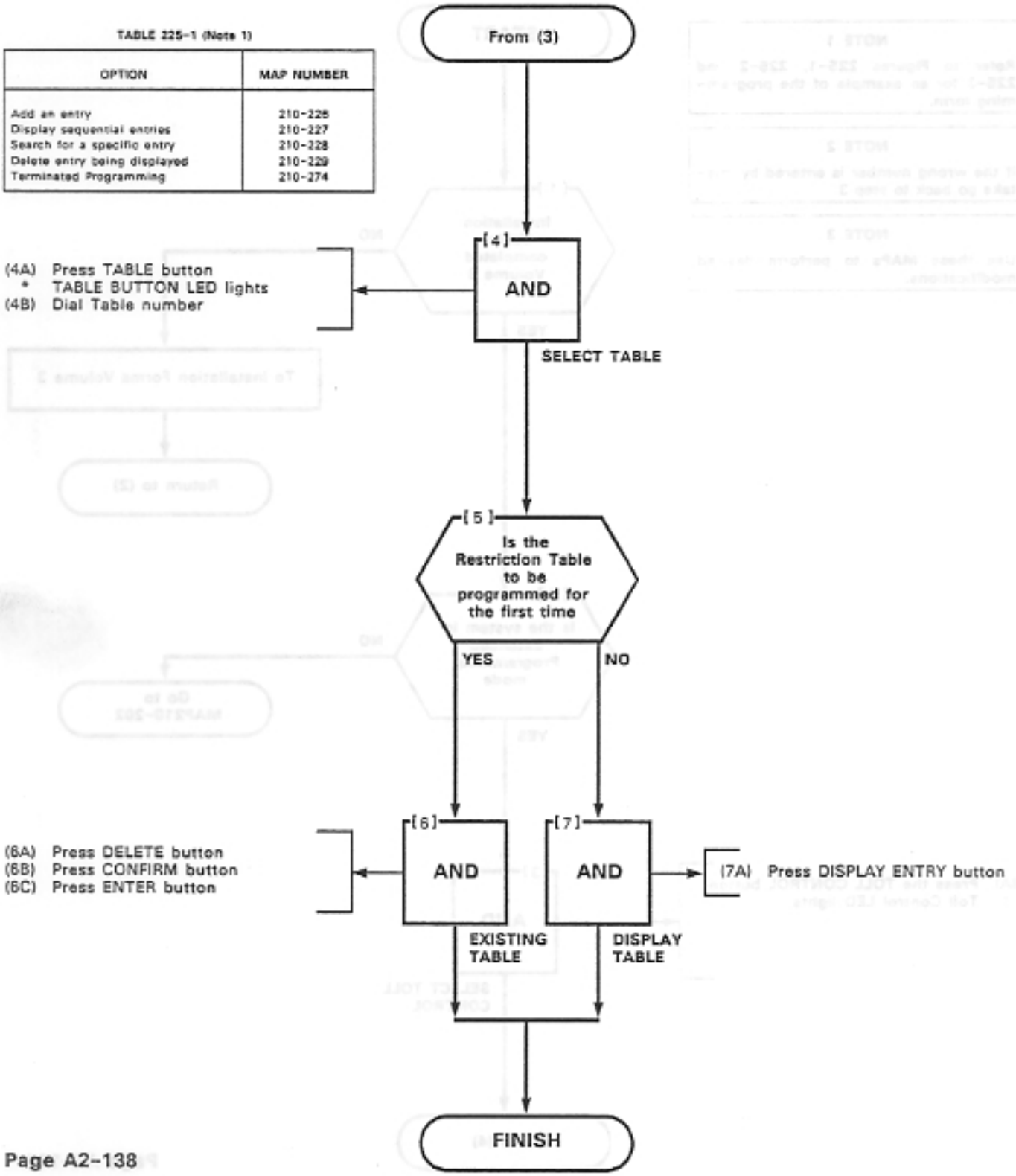
NOTE 3
Use these MAPs to perform desired modifications.



RESTRICTION TABLES
MAP210- 225
Issue 1, September 1983
Sheet 2 of 8

TABLE 225-1 (Note 1)

OPTION	MAP NUMBER
Add an entry	210-226
Display sequential entries	210-227
Search for a specific entry	210-228
Delete entry being displayed	210-229
Terminated Programming	210-274



800 ENTRY EXCEPTION TABLE

FROM BASIC CONDITION ____
OR TABLE NUMBER____ CONTROL PLAN ____

TOLL CONTROL

THIS TABLE LISTS ALL THE CODES THAT ARE ALLOWED ☐
THIS TABLE LISTS ALL THE CODES THAT ARE DENIED ☐

TABLE DIAL 1-9 DISPLAY ENTRY	PRESS ADD BEFORE DIALING EACH ENTRY			IF AN EXPANSION TABLE IS TO BE APPLIED TO THIS ENTRY TABLE DIAL TABLE NUMBER 1-9 OR 21-33 OR 51-73	
2-1	911			— —	
23-26	976				
51	213/21	714/25	619/20	24,25,26	
52	011				
					ENTER

TO SEARCH FOR A SPECIFIC ENTRY

DISPLAY ENTRY — DIAL ENTRY — DISPLAY ENTRY — IF THE ENTRY DOES NOT EXIST DASHES ARE SHOWN IN THE ENTRY DISPLAY

TO DISPLAY THE NEXT ENTRY IN THE TABLE AFTER THE TABLE HAS BEEN SELECTED

NEXT

TO DELETE THE ENTRY BEING DISPLAYED

DELETE — ENTER — NOTE: ANY OPERATIONS MAY BE PERFORMED IN ANY ORDER.

TO DELETE ALL ENTRIES FROM A TABLE

TABLE — DIAL TABLE NUMBER — DELETE — CONFIRM — ENTER

MITEL

800 ENTRY EXCEPTION TABLE

FROM BASIC CONDITION _____
OR TABLE NUMBER_____ CONTROL PLAN _____

TOLL CONTROL

THIS TABLE LISTS ALL THE CODES THAT ARE ALLOWED ☐
THIS TABLE LISTS ALL THE CODES THAT ARE DENIED ☐

TABLE DIAL 1-9 DISPLAY ENTRY	PRESS ADD BEFORE DIALING EACH ENTRY	IF AN EXPANSION TABLE IS TO BE APPLIED TO THIS ENTRY TABLE DIAL TABLE NUMBER 1-9 OR 21-33 OR 51-73	
			ENTER

TO SEARCH FOR A SPECIFIC ENTRY

DISPLAY ENTRY DIAL ENTRY DISPLAY ENTRY IF THE ENTRY DOES NOT EXIST DASHES ARE SHOWN IN THE ENTRY DISPLAY

TO DISPLAY THE NEXT ENTRY IN THE TABLE AFTER THE TABLE HAS BEEN SELECTED

NEXT

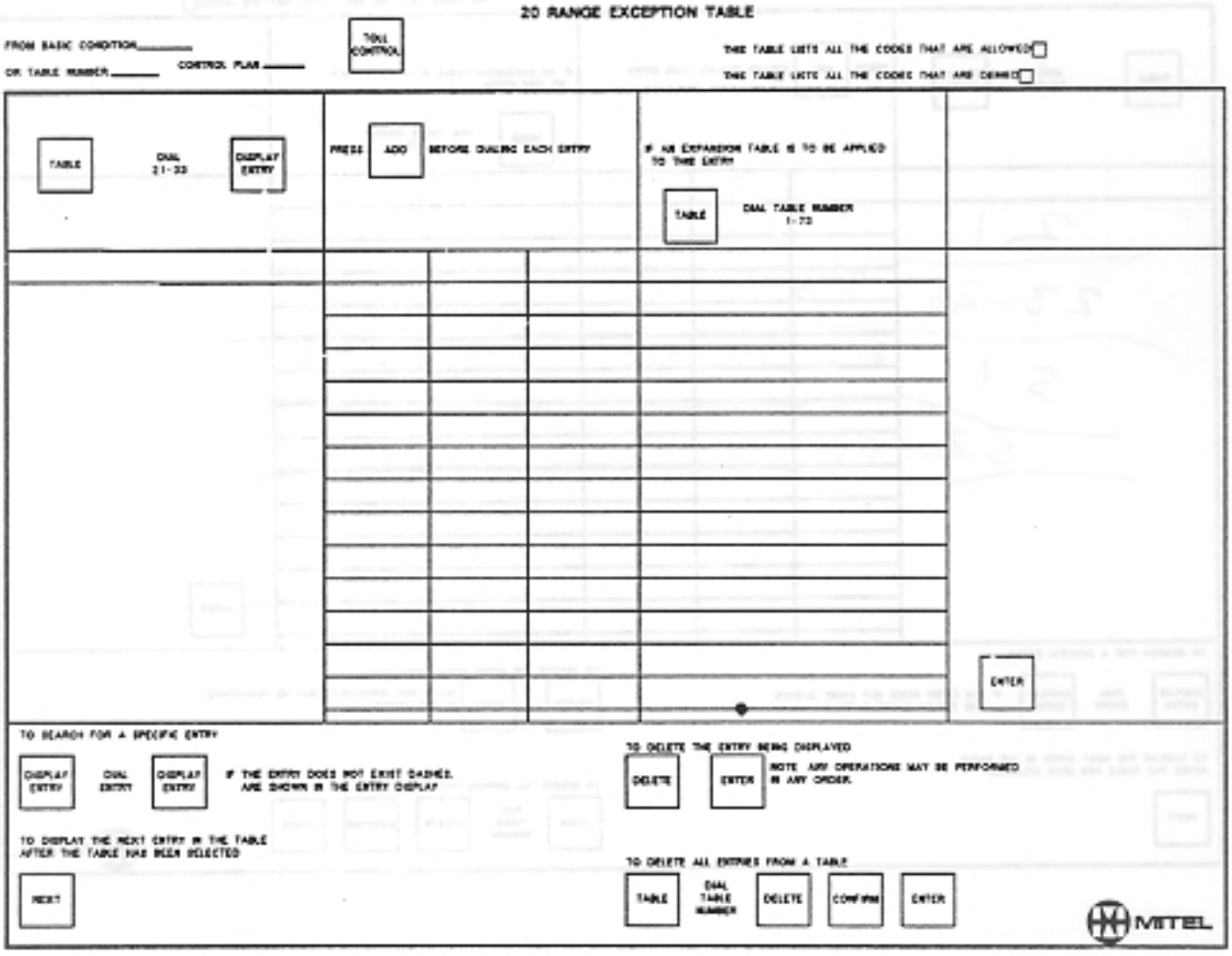
TO DELETE THE ENTRY BEING DISPLAYED

DELETE ENTER NOTE: ANY OPERATIONS MAY BE PERFORMED IN ANY ORDER.

TO DELETE ALL ENTRIES FROM A TABLE

TABLE DIAL TABLE NUMBER DELETE CONFIRM ENTER

MITEL


20 RANGE EXCEPTION TABLE
FROM BASIC CONDITION
OR TABLE NUMBER
CONTROL PLAN
TOLL CONTROL
THIS TABLE LISTS ALL THE CODES THAT ARE ALLOWED
THIS TABLE LISTS ALL THE CODES THAT ARE DENIED
TABLE
DIAL 21-33
DISPLAY ENTRY
PRESS ADD BEFORE DIALING EACH ENTRY
IF AN EXPANSION TABLE IS TO BE APPLIED TO THIS ENTRY
TABLE
DIAL TABLE NUMBER 1-72
ENTER
TO SEARCH FOR A SPECIFIC ENTRY
DISPLAY ENTRY
DIAL ENTRY
DISPLAY ENTRY
IF THE ENTRY DOES NOT EXIST DASHES ARE SHOWN IN THE ENTRY DISPLAY
TO DISPLAY THE NEXT ENTRY IN THE TABLE AFTER THE TABLE HAS BEEN SELECTED
NEXT
TO DELETE THE ENTRY BEING DISPLAYED
DELETE
ENTER
NOTE ANY OPERATIONS MAY BE PERFORMED IN ANY ORDER.
TO DELETE ALL ENTRIES FROM A TABLE
TABLE
DIAL TABLE NUMBER
DELETE
CONFIRM
ENTER
MITEL

20 RANGE EXCEPTION TABLE

FROM BASIC CONDITION _____

OR TABLE NUMBER _____ CONTROL PLAN _____

TOLL CONTROL

THIS TABLE LISTS ALL THE CODES THAT ARE ALLOWED ☐

THIS TABLE LISTS ALL THE CODES THAT ARE DENIED ☐

TABLE — DIAL 21-39 — DISPLAY ENTRY

PRESS ADD BEFORE DIALING EACH ENTRY

IF AN EXPANSION TABLE IS TO BE APPLIED TO THIS ENTRY

TABLE — DIAL TABLE NUMBER 1-73

21	911			
23-26	976			
51	213	714	619	24, 25, 26
52	011			

ENTER

TO SEARCH FOR A SPECIFIC ENTRY

DISPLAY ENTRY — DIAL ENTRY — DISPLAY ENTRY

IF THE ENTRY DOES NOT EXIST DIGITS ARE SHOWN IN THE ENTRY DISPLAY

TO DISPLAY THE NEXT ENTRY IN THE TABLE AFTER THE TABLE HAS BEEN SELECTED

NEXT

TO DELETE THE ENTRY BEING DISPLAYED

DELETE — ENTER

NOTE: ANY OPERATIONS MAY BE PERFORMED IN ANY ORDER.

TO DELETE ALL ENTRIES FROM A TABLE

TABLE — DIAL TABLE NUMBER — DELETE — CONFIRM — ENTER

MITEL

4 ENTRY EXCEPTION TABLE

FROM BASIC CONDITION____
OR TABLE NUMBER____ CONTROL PLAN____ TOLL CONTROL

THIS TABLE LISTS ALL THE CODES THAT ARE ALLOWED ☐
THIS TABLE LISTS ALL THE CODES THAT ARE DENIED ☐

TABLE DIAL 51-73 DISPLAY ENTRY

PRESS ADD BEFORE DIALING EACH ENTRY

IF AN EXPANSION TABLE IS TO BE APPLIED TO THIS ENTRY
TABLE DIAL TABLE NUMBER 1-73

TABLE NUMBER					
51	213			24	
	214			25	
52	614			26	
	011				

ENTER

TO SEARCH FOR A SPECIFIC ENTRY
DISPLAY ENTRY DIAL ENTRY DISPLAY ENTRY IF THE ENTRY DOES NOT EXIST DASHES ARE SHOWN IN THE ENTRY DISPLAY

NEXT TO DISPLAY THE NEXT ENTRY HAS Y IN THE TABLE AFTER THE ENTRY HAS BEEN SELECTED

TO DELETE THE ENTRY BEING DISPLAYED
DELETE ENTER NOTE: ANY OPERATIONS MAY BE PERFORMED IN ANY ORDER

TO DELETE ALL ENTRIES FROM A TABLE
TABLE DIAL TABLE NUMBER DELETE CONFIRM ENTER

4 ENTRY EXCEPTION TABLE

FROM BASIC CONDITION_____
OR TABLE NUMBER_____ CONTROL PLAN_____ TOLL CONTROL

THIS TABLE LISTS ALL THE CODES THAT ARE ALLOWED ☐
THIS TABLE LISTS ALL THE CODES THAT ARE DENIED ☐

TABLE DIAL 61-73 DISPLAY ENTRY	PRESS ADD BEFORE DIALING EACH ENTRY	IF AN EXPANSION TABLE IS TO BE APPLIED TO THIS ENTRY: TABLE DIAL TABLE NUMBER 1-73	
TABLE NUMBER			ENTER

TO SEARCH FOR A SPECIFIC ENTRY
DISPLAY ENTRY DIAL ENTRY DISPLAY ENTRY — IF THE ENTRY DOES NOT EXIST DASHES ARE SHOWN IN THE ENTRY DISPLAY
NEXT — TO DISPLAY THE NEXT ENTRY HAS Y IN THE TABLE AFTER THE ENTRY HAS BEEN SELECTED

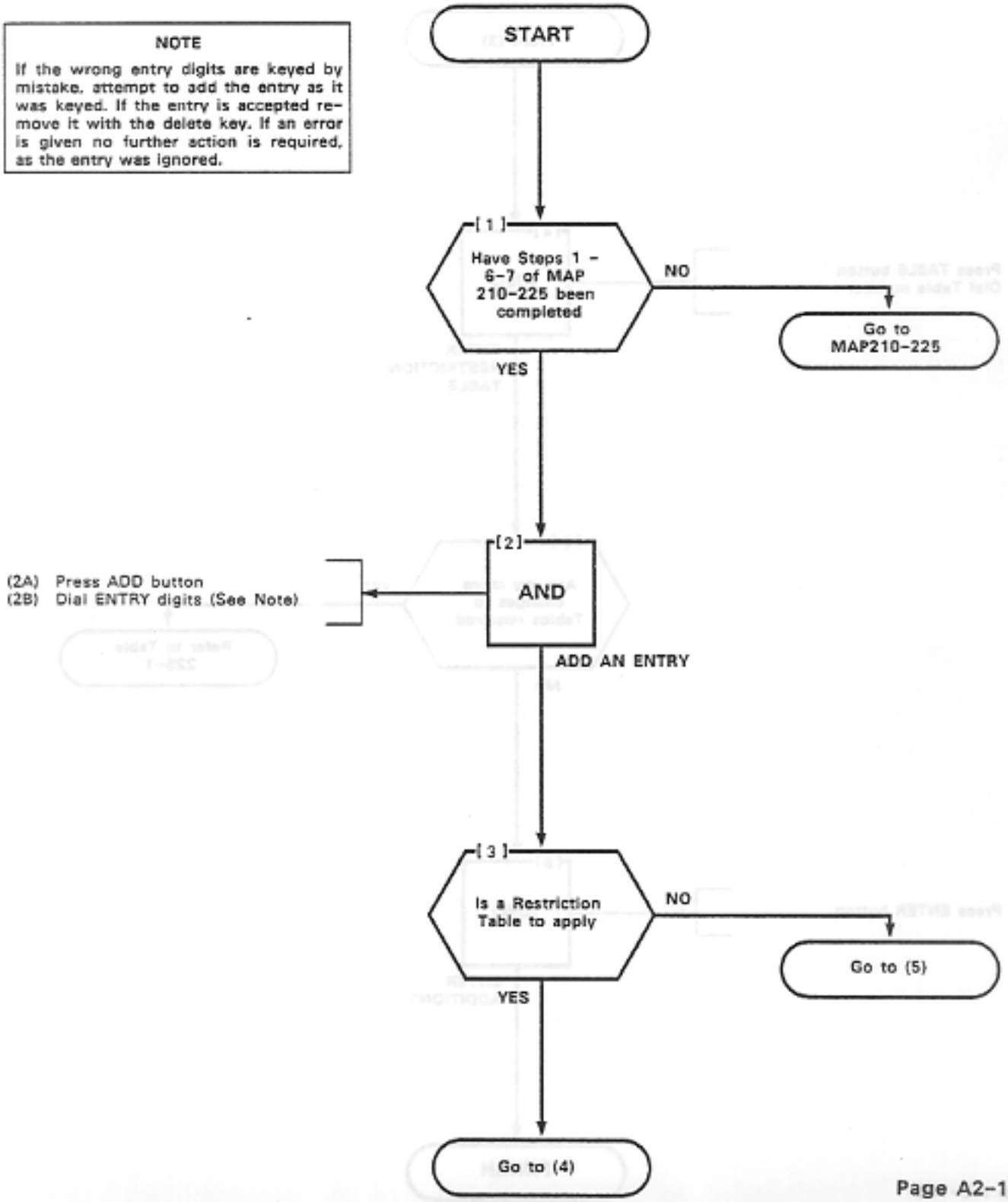
TO DELETE THE ENTRY BEING DISPLAYED
DELETE ENTER — NOTE: ANY OPERATIONS MAY BE PERFORMED IN ANY ORDER

TO DELETE ALL ENTRIES FROM A TABLE
TABLE DIAL TABLE NUMBER DELETE CONFIRM ENTER

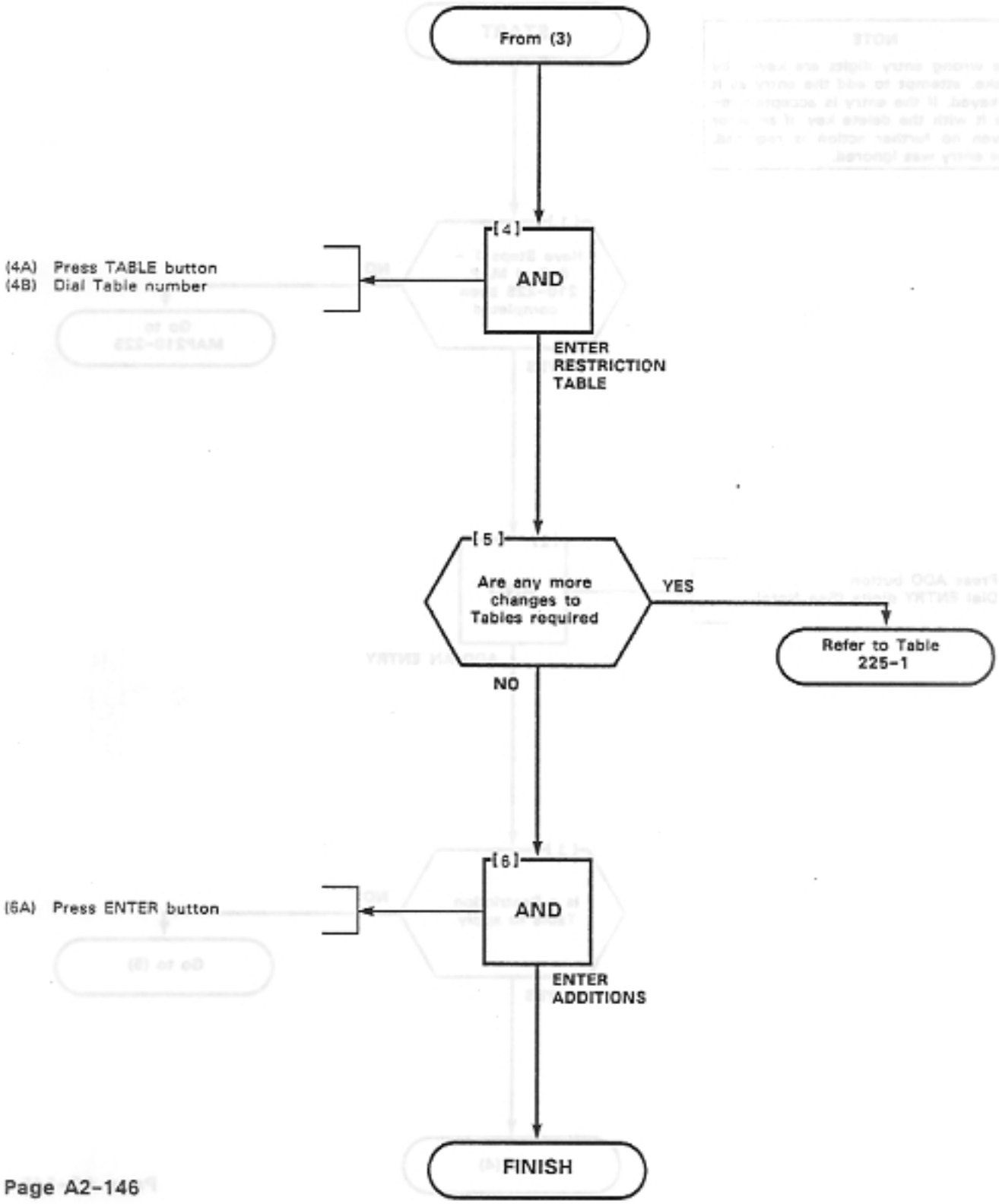
ADD AN ENTRY
MAP210-226
Issue 1, September 1983
Sheet 1 of 2

NOTE

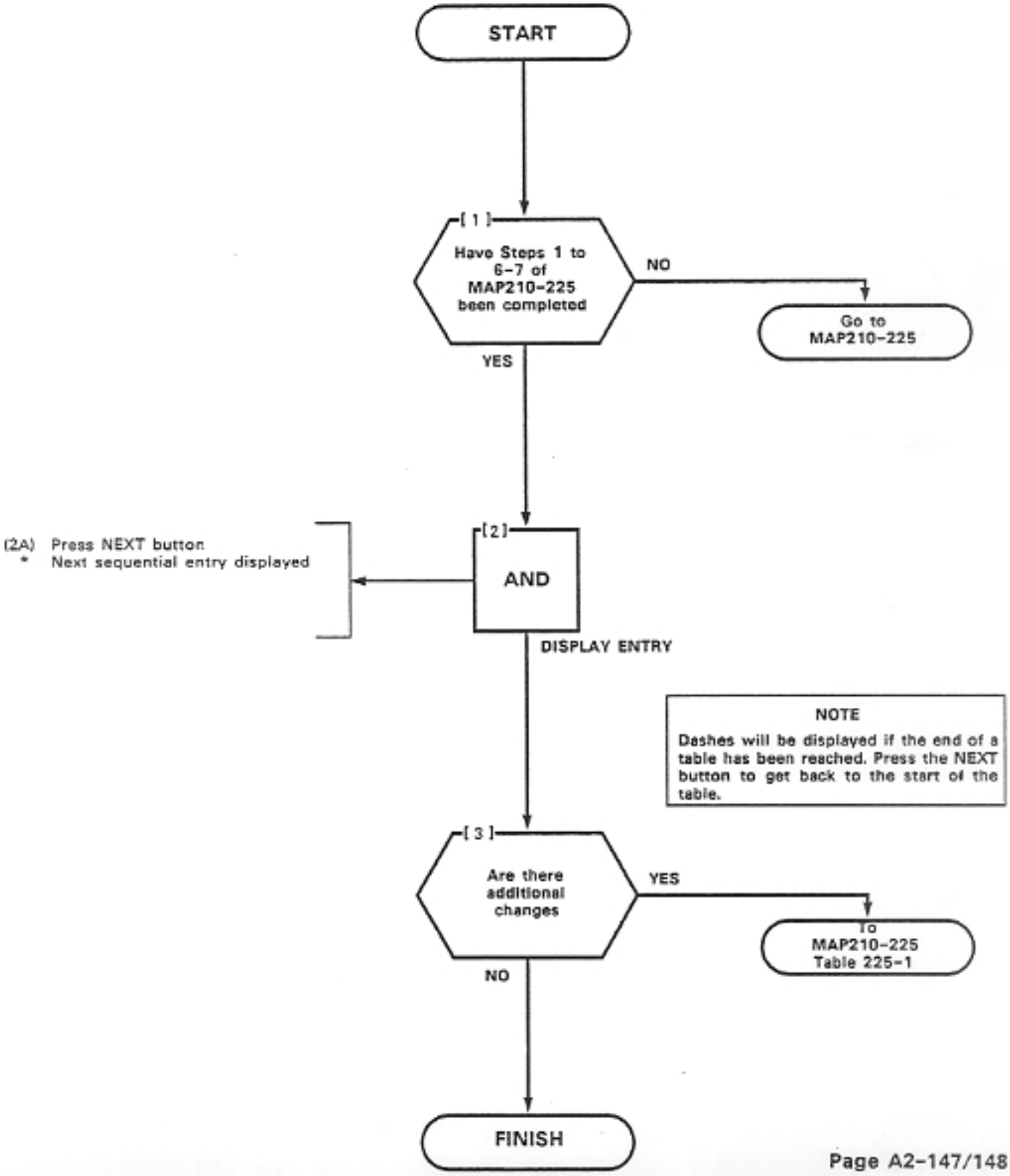
If the wrong entry digits are keyed by mistake, attempt to add the entry as it was keyed. If the entry is accepted remove it with the delete key. If an error is given no further action is required, as the entry was ignored.



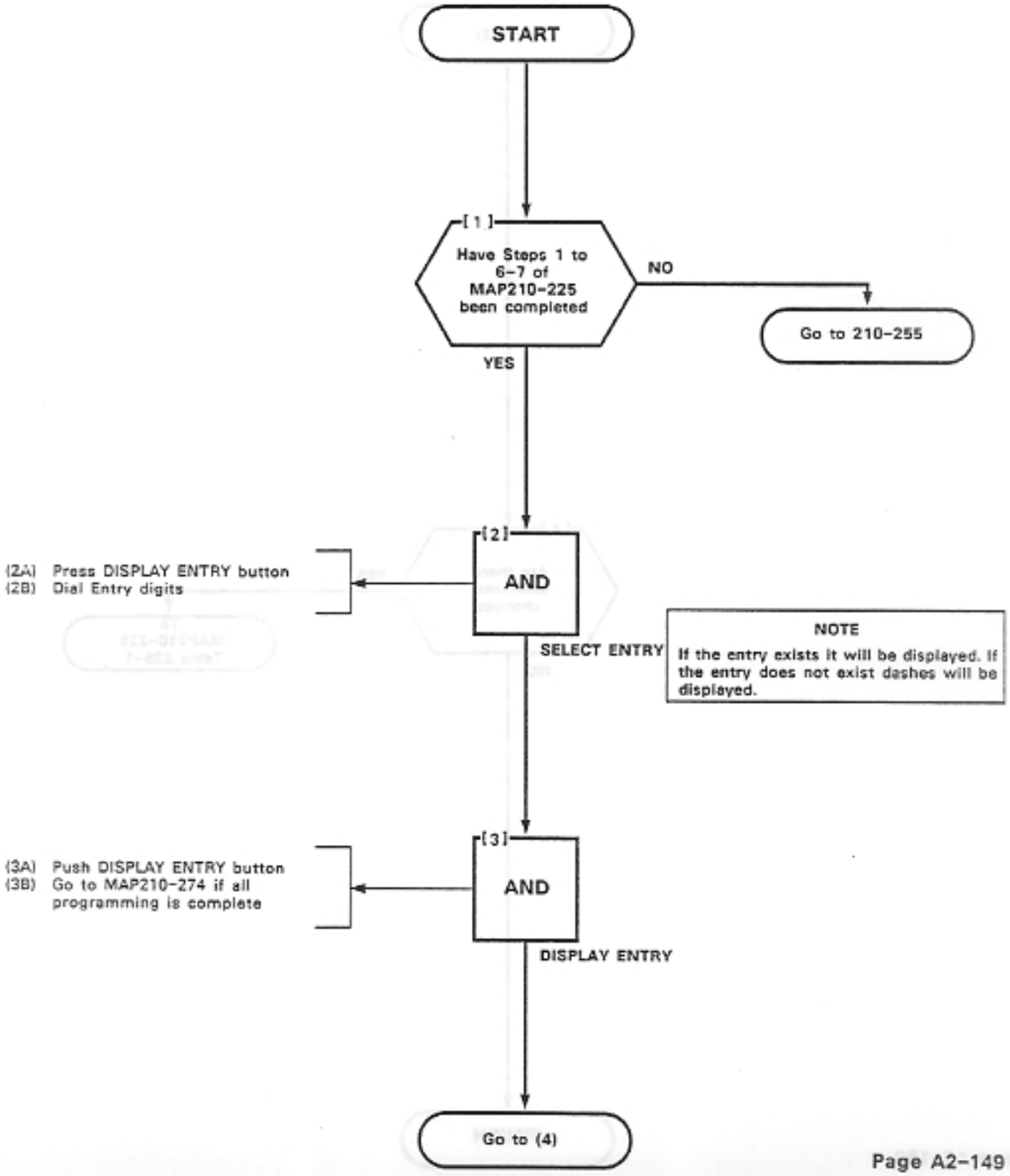
ADD AN ENTRY
MAP210- 226
Issue 1, September 1983
Sheet 2 of 2



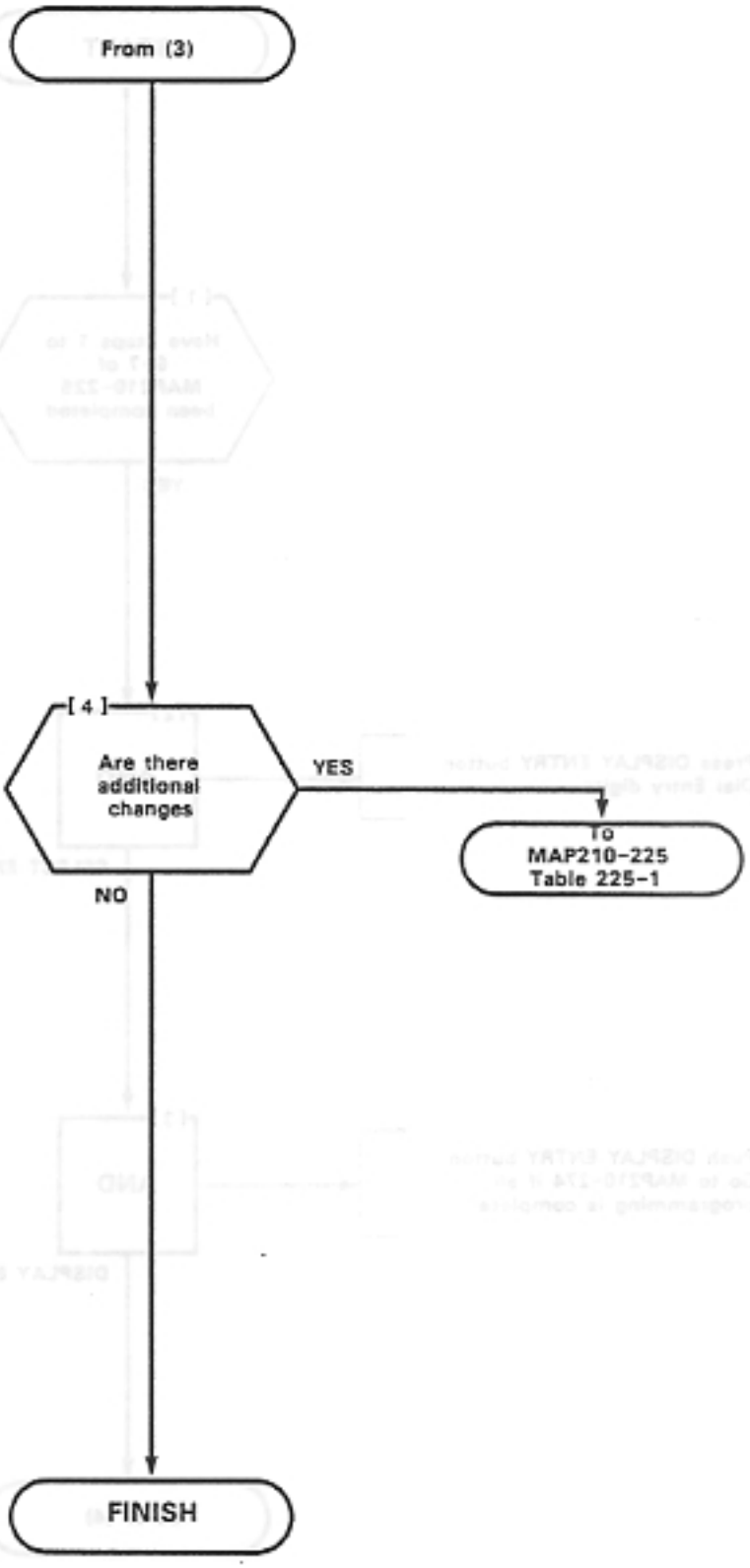
DISPLAYING SEQUENTIAL ENTRIES
MAP210-227
Issue 1, September 1983
Sheet 1 of 1



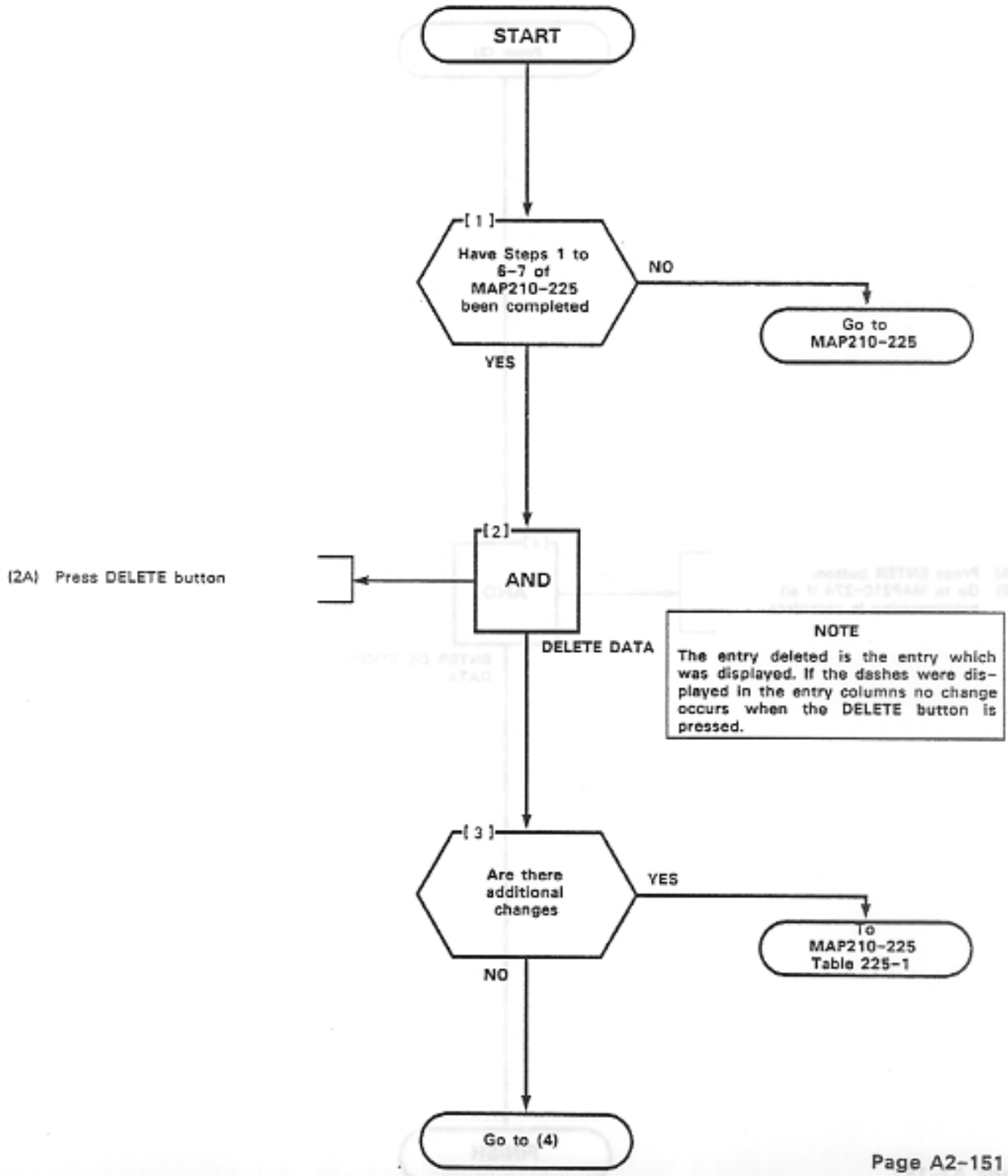
SEARCH FOR AN ENTRY
MAP210-228
Issue 1, September 1983
Sheet 1 of 2



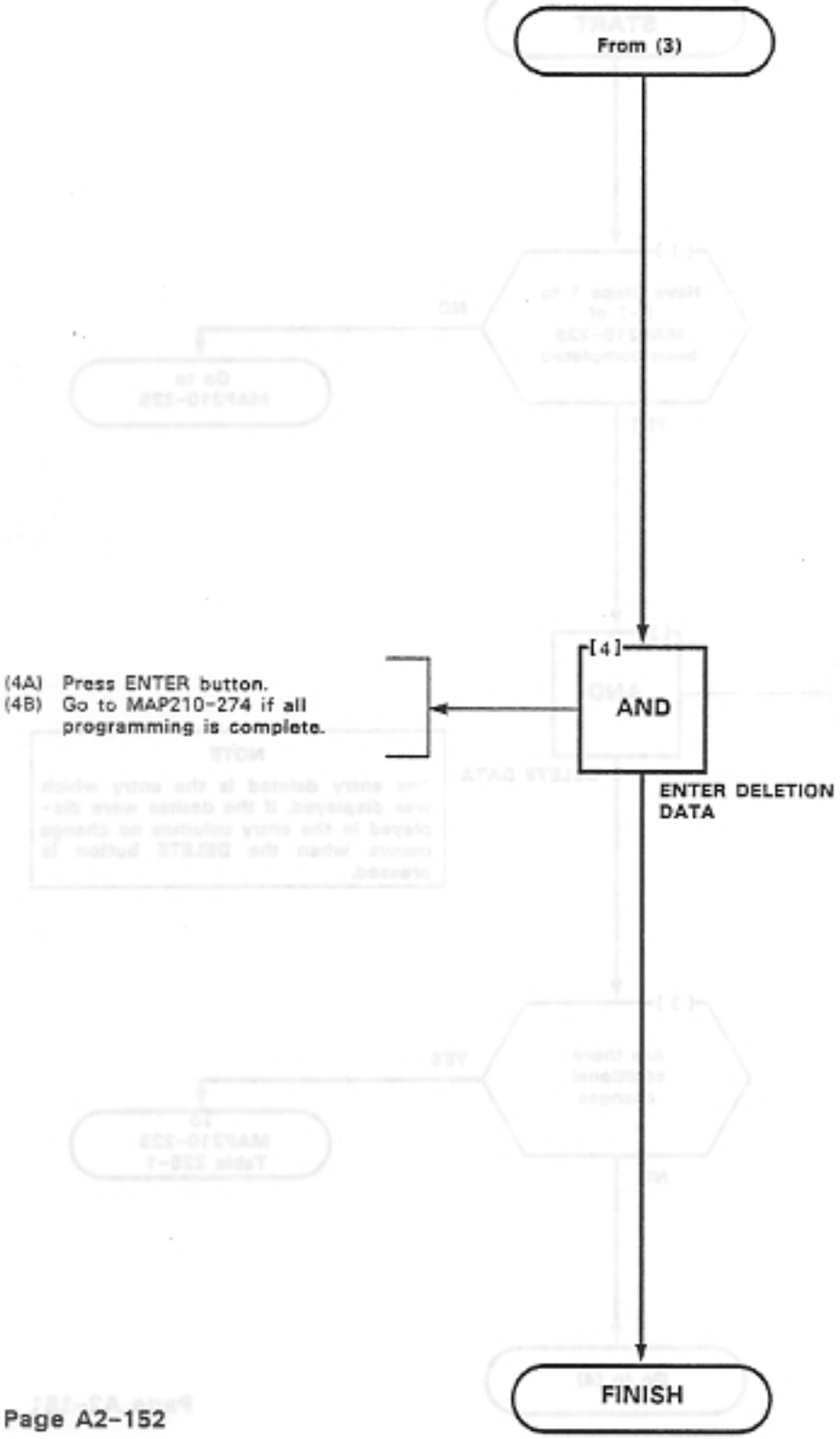
SEARCH FOR AN ENTRY
MAP210- 228
Issue 1, September 1983
Sheet 2 of 2



DELETE AN ENTRY
MAP210-229
Issue 1, September 1983
Sheet 1 of 2



DELETE AN ENTRY
MAP210- 229
Issue 1, September 1983
Sheet 2 of 2



PROGRAMMING PERSONAL TABLES
MAP210-242
Issue 1, September 1983
Sheet 1 of 11

NOTES

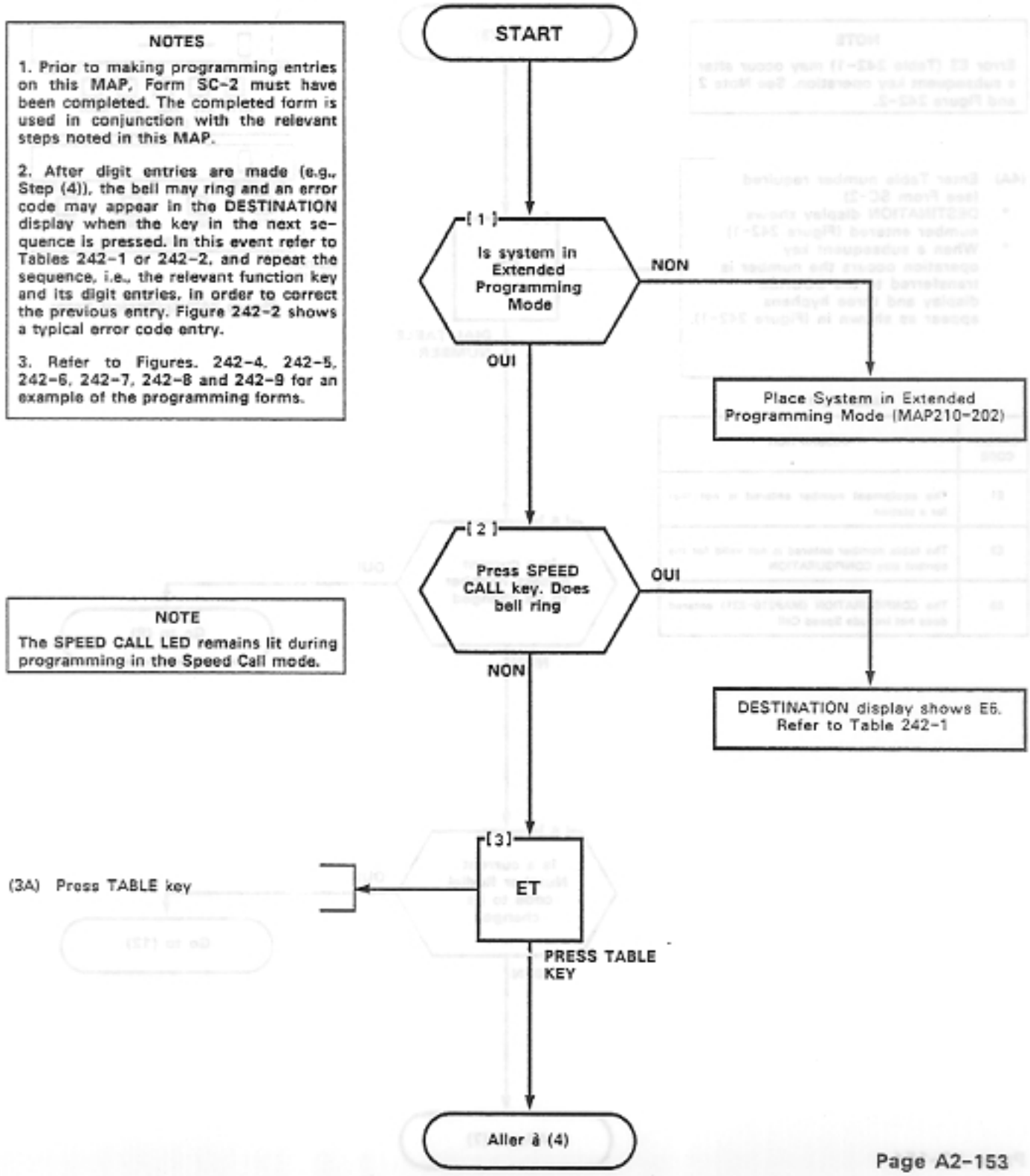
1. Prior to making programming entries on this MAP, Form SC-2 must have been completed. The completed form is used in conjunction with the relevant steps noted in this MAP.

2. After digit entries are made (e.g., Step (4)), the bell may ring and an error code may appear in the DESTINATION display when the key in the next sequence is pressed. In this event refer to Tables 242-1 or 242-2, and repeat the sequence, i.e., the relevant function key and its digit entries, in order to correct the previous entry. Figure 242-2 shows a typical error code entry.

3. Refer to Figures. 242-4, 242-5, 242-6, 242-7, 242-8 and 242-9 for an example of the programming forms.

NOTE

The SPEED CALL LED remains lit during programming in the Speed Call mode.



PROGRAMMING PERSONAL TABLES
MAP210- 242
Issue 1, September 1983
Sheet 2 of 11

NOTE

Error E3 (Table 242-1) may occur after a subsequent key operation. See Note 2 and Figure 242-2.

De (3)

[4]

ET

DIAL TABLE NUMBER

(4A) Enter Table number required (see From SC-2)
* DESTINATION display shows number entered (Figure 242-1)
* When a subsequent key operation occurs the number is transferred to the SOURCE display and three hyphens appear as shown in (Figure 242-1).

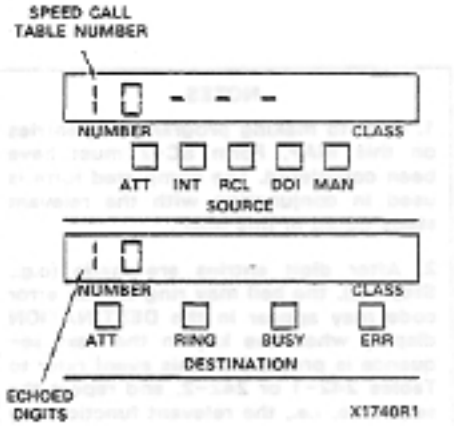


Figure 242-1 Display Typical Entry

TABLE 242-1

ERROR CODE	DESCRIPTION
E1	The equipment number entered is not that for a station
E3	The table number entered is not valid for the current size CONFIGURATION
E8	The CONFIGURATION (MAP210-221) entered does not include Speed Call

[5]

Is a current Access Number to be changed

OUI

Go to (9)

NON

[6]

Is a current Number Redial code to be changed

OUI

Go to (12)

NON

Aller à (7)

PROGRAMMING PERSONAL TABLES
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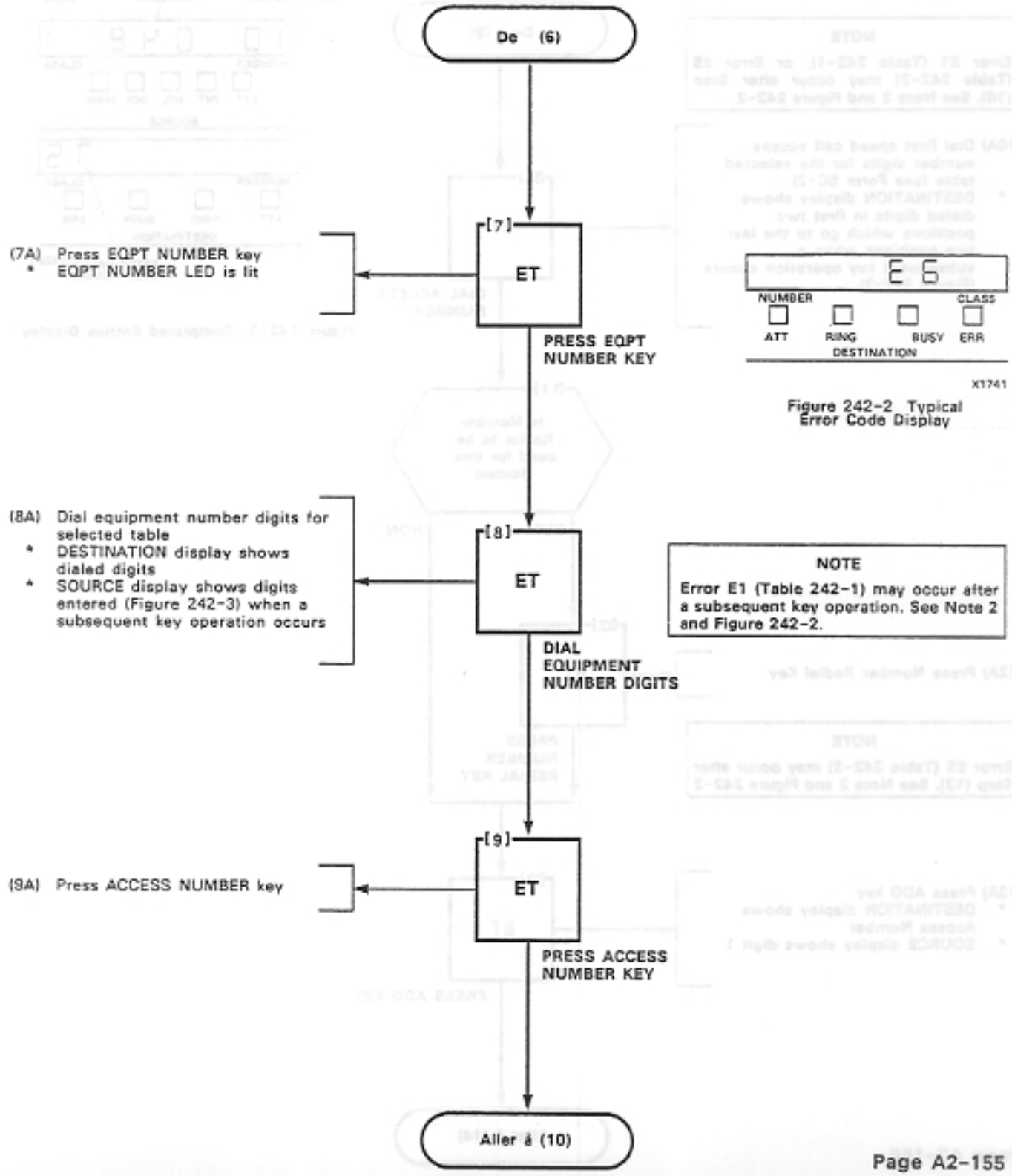

Figure 242-2 Typical Error Code Display

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NOTE
Error E1 (Table 242-1), or Error E5 (Table 242-2) may occur after Step (10). See Note 2 and Figure 242-2

De (9)

[10]
ET

(10A) Dial first speed call access number digits for the selected table (see Form SC-2)
* DESTINATION display shows dialed digits in first two positions which go to the last two positions when a subsequent key operation occurs (Figure 242-3).

DIAL ACCESS NUMBER

[11]
Is Number Redial to be used for this Station

OUI

NON

[12]
ET

(12A) Press Number Redial Key

NOTE
Error E5 (Table 242-3) may occur after Step (13). See Note 2 and Figure 242-2

PRESS NUMBER REDIAL KEY

[13]
ET

(13A) Press ADD key
* DESTINATION display shows Access Number
* SOURCE display shows digit 1

PRESS ADD KEY

Aller à (14)

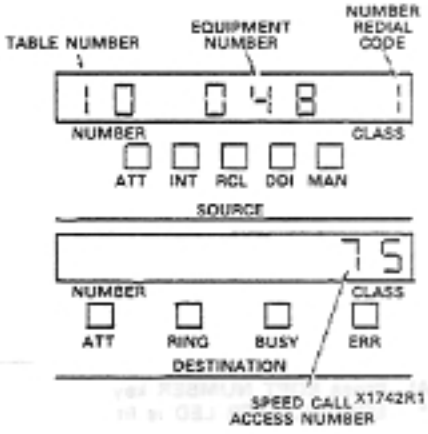


Figure 242-3 Completed Entries Display

MITEL SPEED CALL TABLE ALLOCATIONS FORM SC-1

TABLE NUMBER	ENTRY ACCESS NUMBERS		SOFT NUMBER	REDIAL	CLASS OF SERVICE															
	COMMON-USE	PERSONAL			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	10-14																			
2	15-19																			
3	20-24																			
4	25-29																			
5	30-34																			
6	35-39																			
7	40-44																			
8	45-49																			
9	50-54																			
10	55-59																			
11	60-64																			
12	65-69																			
13	70-74																			
14	75-79																			
15	80-84																			
16	85-89																			
17	90-94																			
18	95-99																			
19																				
20																				
21																				
22																				
23																				
24																				
25																				

NOTES: 1. IF TABLE IS TO BE ASSIGNED AS A PERSONAL TABLE, STRIKE OUT COMMON-USE ENTRY ACCESS NUMBERS. ENTER NEW ENTRY ACCESS NUMBERS IN PERSONAL COLUMN.
2. CHECK IN REMAINING COLUMNS AS REQUIRED FOR EACH TABLE

MITEL

PERSONAL TABLE PROGRAMMING FORM SC-2
(SYSTEM MUST BE IN EXTENDED PROGRAMMING MODE)

PRESS [SPEED CALL]

[TABLE] DIAL TABLE NO.	[COPY NUMBER] DIAL EQUIPMENT NO. (1-112, 161-264) OR DELETE	(NOTE 7 & 10) [ACCESS NUMBER] DIAL ACCESS NO.	(NOTE 3) [NUMBER REDIAL] ADD OR DELETE		SEE NOTE 5 TO ENTER DATA
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					

NOTES

1. USE THE ENTRIES MADE ON FORM SC-1 FOR THE PERSONAL TABLES BY TRANSCRIBING THESE IN TURN TO THEIR RESPECTIVE COLUMNS AGAINST THE SAME TABLE NUMBERS ON FORM SC-2. COMMON - USE TABLES HAVE BLANK ENTRIES.

2. ONLY THE FIRST ACCESS NUMBER FOR EACH PERSONAL TABLE IS REQUIRED TO BE ENTERED. THE REMAINING ACCESS NUMBERS ARE AUTOMATICALLY ALLOCATED FOR THE TABLE

3. THE SAVED NUMBER REDIAL OPERATION IS INITIALLY OMITTED IF NOT REQUIRED. FOR SUBSEQUENT PROGRAMMING SEE NOTES 8 & 9.

4. PERSONAL TABLE DATA IS PROGRAMMED IN EXTENDED PROGRAMMING MODE. SEE SECTION MITL9105/9110-090-210-NA APPENDIX 2 FOR FULL DETAILS

5. THE ENTER BUTTON MUST BE PRESSED TO ENTER EACH TABLE'S DATA

6. REMOVING A PERSONAL TABLE REMOVES ALL ITS CONTENTS, ACCESS NUMBERS AND REDIAL VALUE IF ANY.

7. TO REMOVE A PERSONAL TABLE

[SPEED CALL] [TABLE] DIAL TABLE NUMBER [COPY NUMBER] [DELETE] [ENTER]

8. TO ADD A REDIAL ATTRIBUTE

[SPEED CALL] [TABLE] DIAL TABLE NUMBER [NUMBER REDIAL] [ADD] [ENTER]

9. TO REMOVE A REDIAL ATTRIBUTE

[SPEED CALL] [TABLE] DIAL TABLE NUMBER [NUMBER REDIAL] [DELETE] [ENTER]

10. TO CHANGE A SPEED CALL ACCESS NUMBER

[SPEED CALL] [TABLE] DIAL TABLE NUMBER [ACCESS NUMBER] DIAL NEW ACCESS NUMBER [ENTER]

MITEL

SPEED CALL NUMBER RECORDS FORM SC-3 (Sheet 1 of 4)

(CONFIDENTIAL WHEN COMPLETED)

SPEED CALL FEATURE CODE _____

SPEED CALL NUMBER

Special sequences can be entered at any point in the telephone number listing EXCEPT *6, IT MUST BE ENTERED AT THE END!
*1 occupies 1 digit space and causes a 5 sec. pause in use
*2 occupies 1 digit space and causes a 5 sec. wait for dial tone
*3NN occupies 2 digit spaces and enables manually dialed digits to be entered
NN represents the number of digits to be dialed
*6 Specifies intercom connection

TABLE	COS	ENTRY ACCESS NUMBER	1 5 10 15 20 25 28	DIGITS USED	DIGITS DIALED	CALLED PARTY
					56	
1		10				
2		15				
3		20				

LISTING YOUR NUMBERS

1. Tables available for use are indicated on the form by the installer. Your Feature Access Code and Classes of Service also have been entered.
2. Opposite the first available entry access number, write in your first telephone number including the trunk group access code. You can use special sequences (see above).
3. Write in the next entry access number, under the first entry number, using a fresh line and continuing with the next telephone number opposite this second entry number.
4. Complete your list of numbers following the above procedure.

INSTRUCTIONS FOR USER (ATTENDANT)

How to Enter or Change a Number

5. Dial Feature Access Code.
6. Dial 0.
7. Dial entry access number required.
8. Dial telephone number for that entry number.
9. Press the RELEASE button.
10. Repeat the above sequences for each of the remaining entries on the list.

How to Delete a Number

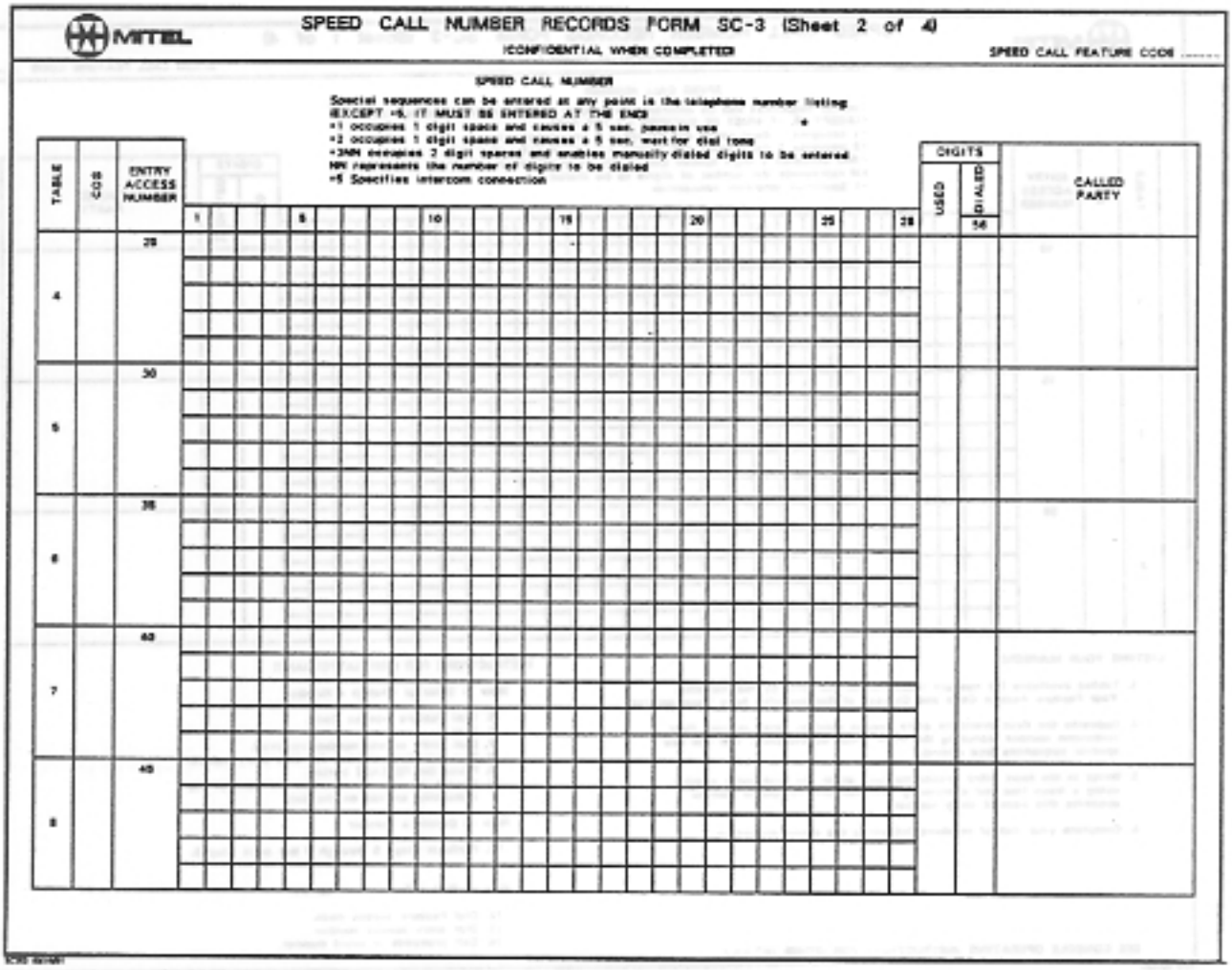
11. Perform Steps 5 through 9 but omit Step 8.

How to Dial a Speed Call Number

12. Dial Feature access code.
13. Dial entry access number.
14. Call proceeds in usual manner.

SEE CONSOLE OPERATING INSTRUCTIONS FOR OTHER DETAILS

P/N 1910-037-012-NA



MITEL

SPEED CALL NUMBER RECORDS FORM SC-3 (Sheet 2 of 4)

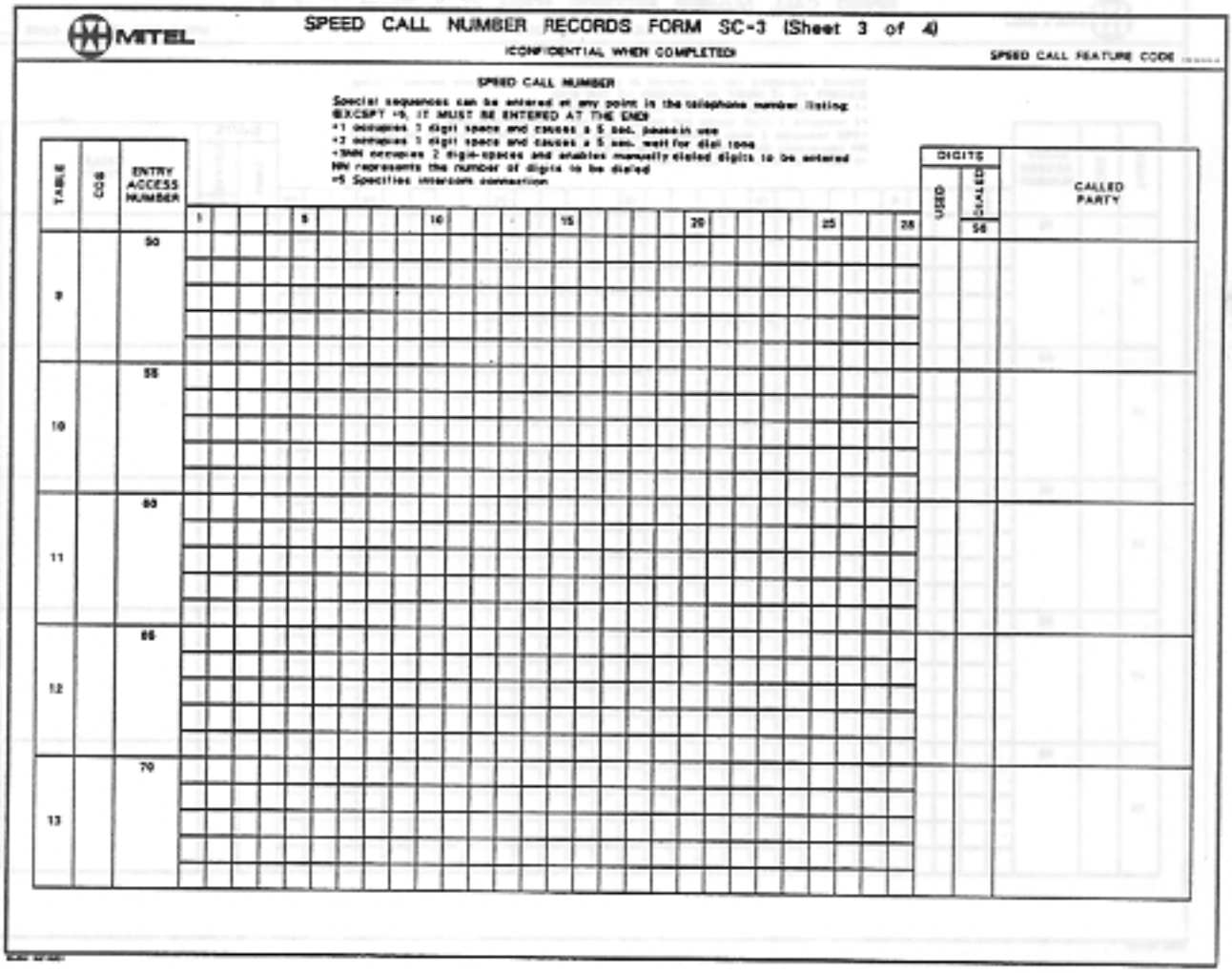
(CONFIDENTIAL WHEN COMPLETED)

SPEED CALL FEATURE CODE .....

SPEED CALL NUMBER

Special sequences can be entered at any point in the telephone number listing (EXCEPT +5, IT MUST BE ENTERED AT THE END)
+1 occupies 1 digit space and causes a 5 sec. pause in use
+2 occupies 1 digit space and causes a 5 sec. wait for dial tone
+3NN occupies 2 digit spaces and enables manually-dialed digits to be entered
NN represents the number of digits to be dialed
+5 Specifies intercom connection

TABLE	COS	ENTRY ACCESS NUMBER	1 5 10 15 20 25 30	DIGITS USED	DIGITS DIALED	CALLED PARTY
4		29				
5		30				
6		31				
7		40				
8		41				



MITEL

SPEED CALL NUMBER RECORDS FORM SC-3 (Sheet 3 of 4)

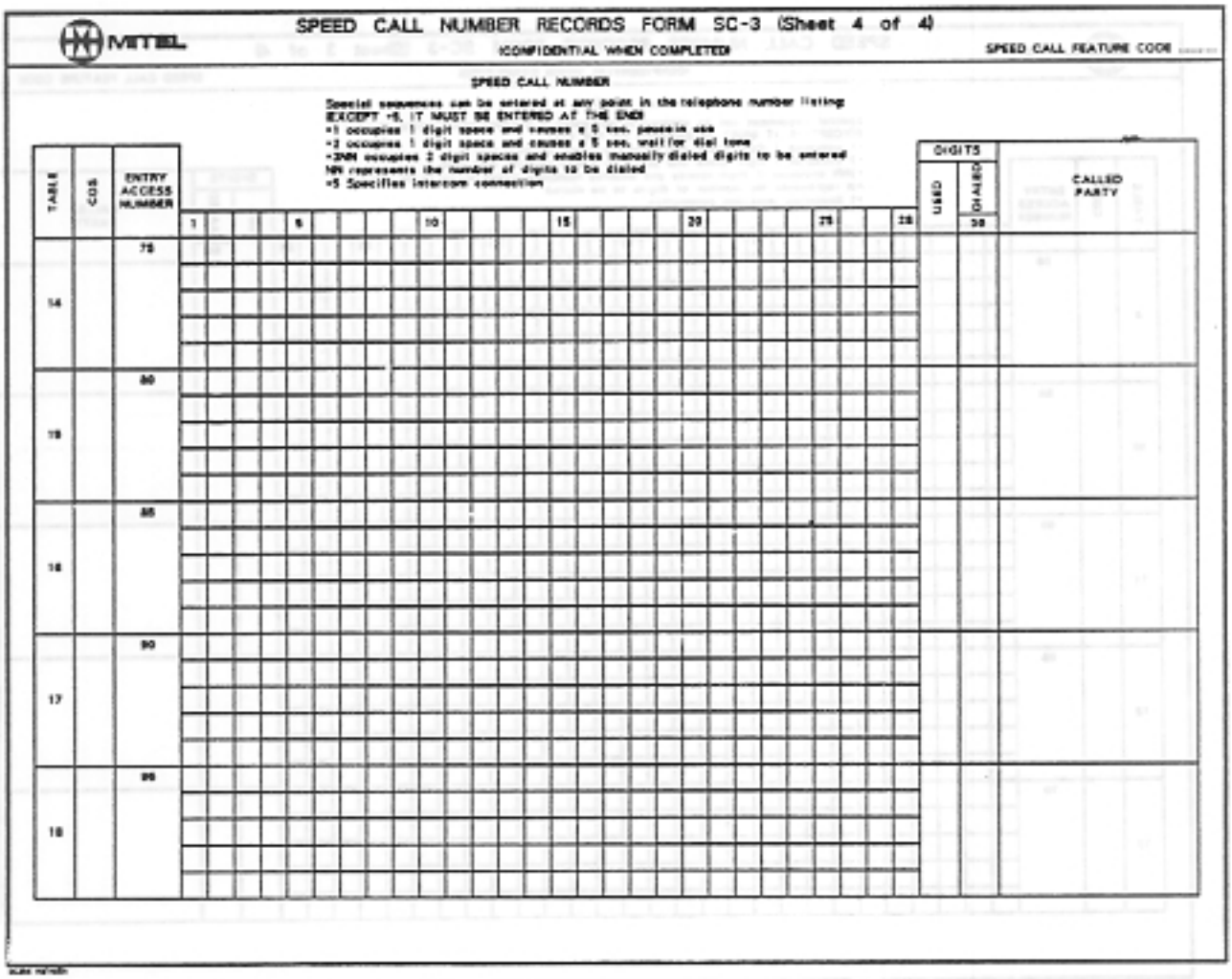
(CONFIDENTIAL WHEN COMPLETED)

SPEED CALL FEATURE CODE

SPEED CALL NUMBER

Special sequences can be entered at any point in the telephone number listing.
(EXCEPT *5, IT MUST BE ENTERED AT THE END)
*1 occupies 1 digit space and causes a 5 sec. pause in use
*2 occupies 1 digit space and causes a 5 sec. wait for dial tone
*INN occupies 2 digit-spaces and enables manually dialed digits to be entered
NN represents the number of digits to be dialed
*5 Specifies intercom connection

TABLE	COS	ENTRY ACCESS NUMBER	1 5 10 15 20 25 28	DIGITS USED	DIGITS DIALED	CALLED PARTY
					56	
9		50				
10		55				
11		60				
12		65				
13		70				



MITEL

SPEED CALL NUMBER RECORDS FORM SC-3 (Sheet 4 of 4)

(CONFIDENTIAL WHEN COMPLETED)

SPEED CALL FEATURE CODE .....

SPEED CALL NUMBER

Special sequences can be entered at any point in the telephone number listing
EXCEPT *5, IT MUST BE ENTERED AT THE END!
*1 occupies 1 digit space and causes a 5 sec. pause in use
*2 occupies 1 digit space and causes a 5 sec. wait for dial tone
*2NN occupies 2 digit spaces and enables manually dialed digits to be entered
NN represents the number of digits to be dialed
*5 Specifies intercom connection

TABLE	COS	ENTRY ACCESS NUMBER	1 5 10 15 20 25 30	DIGITS USED	DIGITS DIALED	CALLED PARTY
					30	
14		75				
15		80				
16		85				
17		90				
18		95				

PROGRAMMING PERSONAL TABLES
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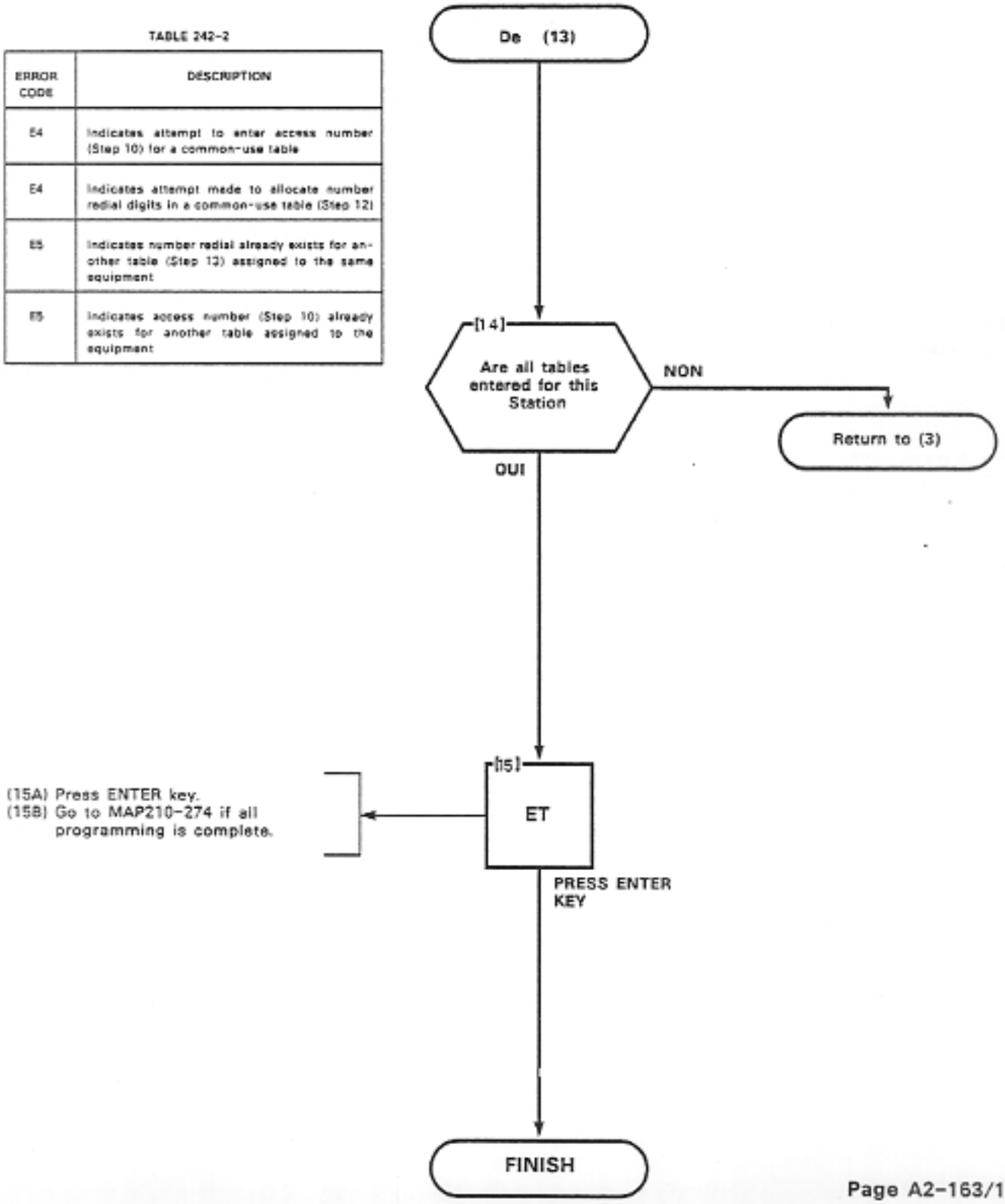
TABLE 242-2

ERROR CODE	DESCRIPTION
E4	Indicates attempt to enter access number (Step 10) for a common-use table
E4	Indicates attempt made to allocate number redial digits in a common-use table (Step 12)
E5	Indicates number redial already exists for another table (Step 12) assigned to the same equipment
E5	Indicates access number (Step 10) already exists for another table assigned to the equipment



CONVERT TABLE FROM PERSONAL TO COMMON-USE
MAP210-243
Issue 1. September 1983
Sheet 1 of 3

NOTE

Common-use Tables do not require programming. This MAP is the procedure used to convert a Personal Table to a Common-use Table.

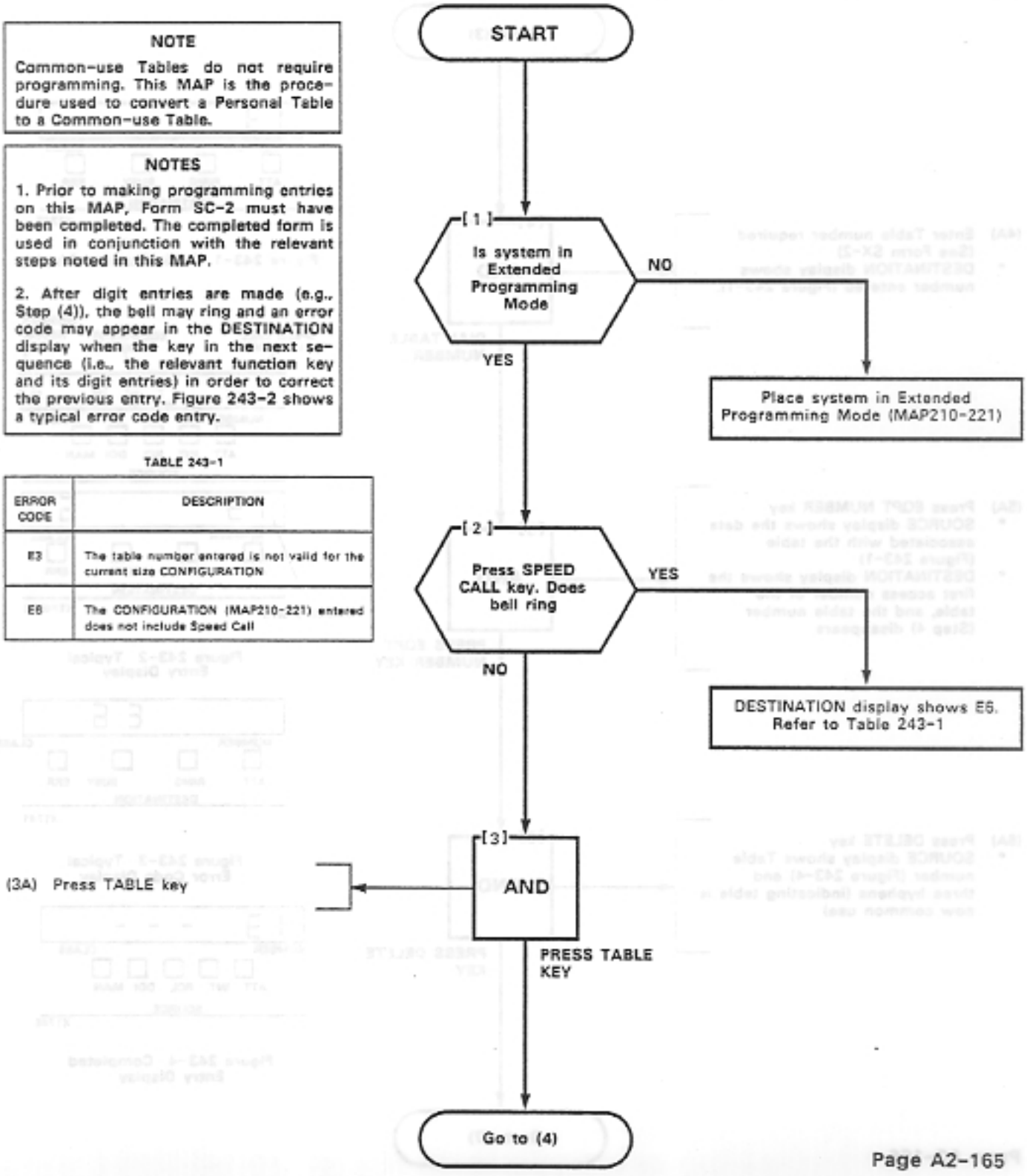
NOTES

1. Prior to making programming entries on this MAP, Form SC-2 must have been completed. The completed form is used in conjunction with the relevant steps noted in this MAP.

2. After digit entries are made (e.g., Step (4)), the bell may ring and an error code may appear in the DESTINATION display when the key in the next sequence (i.e., the relevant function key and its digit entries) in order to correct the previous entry. Figure 243-2 shows a typical error code entry.

TABLE 243-1

ERROR CODE	DESCRIPTION
E3	The table number entered is not valid for the current size CONFIGURATION
E6	The CONFIGURATION (MAP210-221) entered does not include Speed Call



CONVERT TABLE FROM PERSONAL TO COMMON-USE
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From (3)

[4] AND

(4A) Enter Table number required (See Form SX-2)
* DESTINATION display shows number entered (Figure 243-1).

DIAL TABLE NUMBER

[5] AND

(5A) Press EQPT NUMBER key
* SOURCE display shows the data associated with the table (Figure 243-1)
* DESTINATION display shows the first access number of the table, and the table number (Step 4) disappears

PRESS EQPT NUMBER KEY

[6] AND

(6A) Press DELETE key
* SOURCE display shows Table number (Figure 243-4) and three hyphens (indicating table is now common use)

PRESS DELETE KEY

Go to (7)

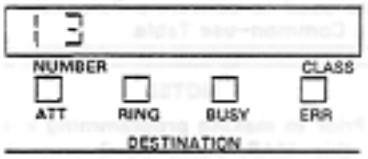

Figure 243-1 Table Number Display

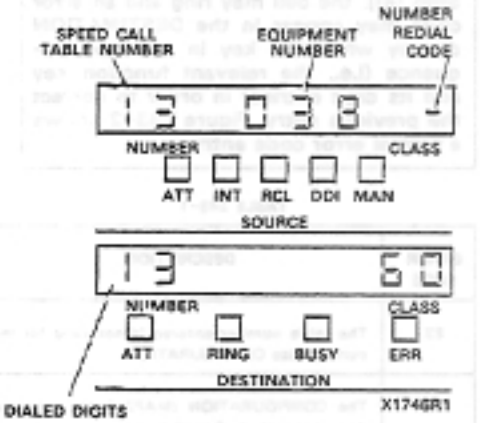

Figure 243-2 Typical Entry Display

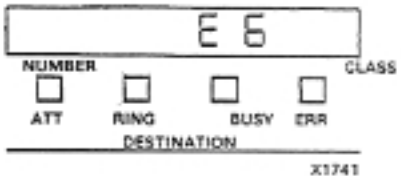

Figure 243-3 Typical Error Code Display

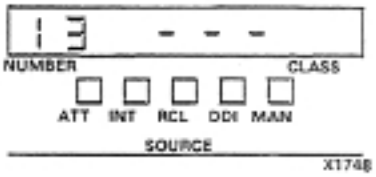

Figure 243-4 Completed Entry Display

CONVERT TABLE FROM PERSONAL TO COMMON-USE
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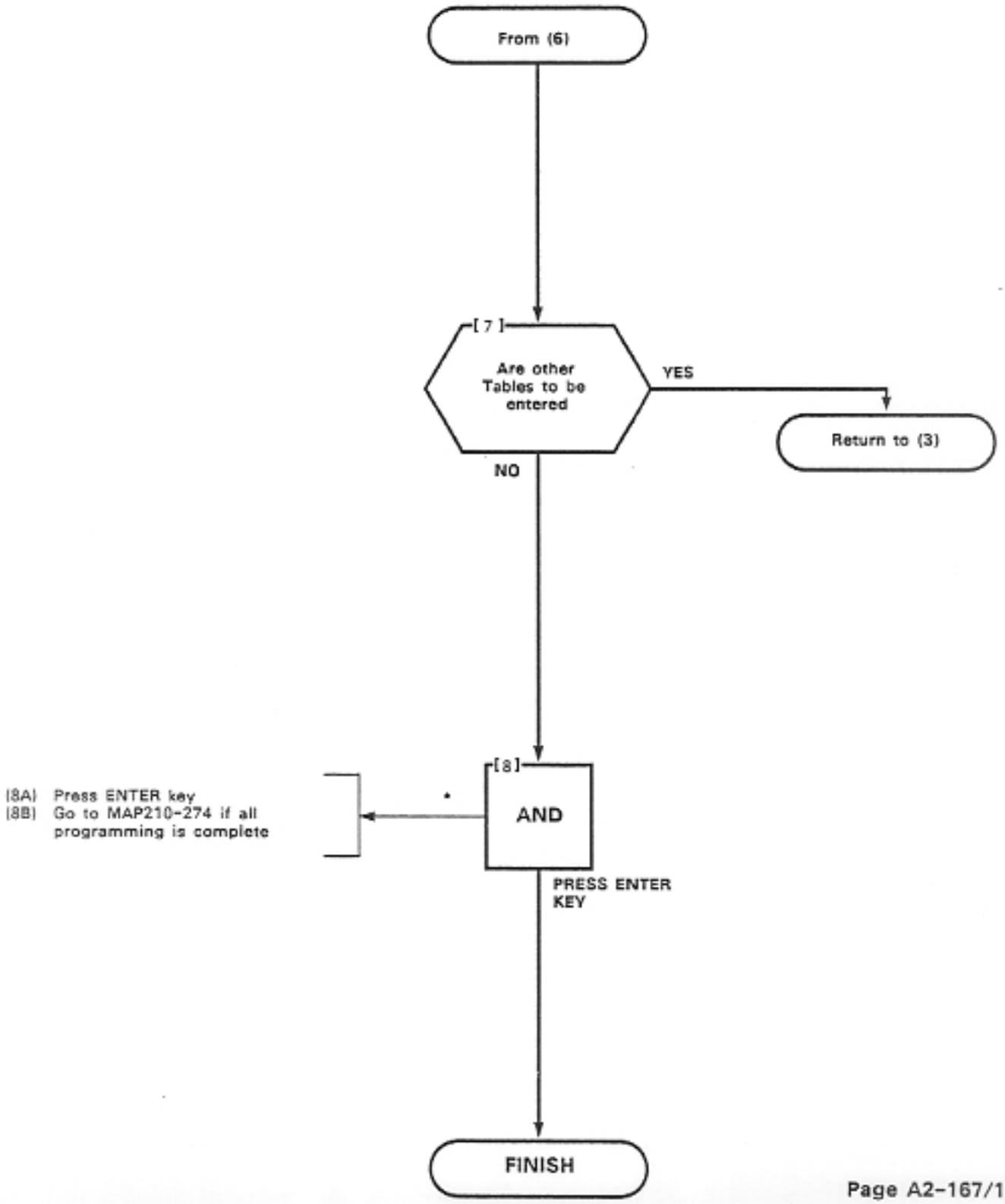

CODE TABLE QUANTITY SELECTION OR CHANGE
MAP210-250
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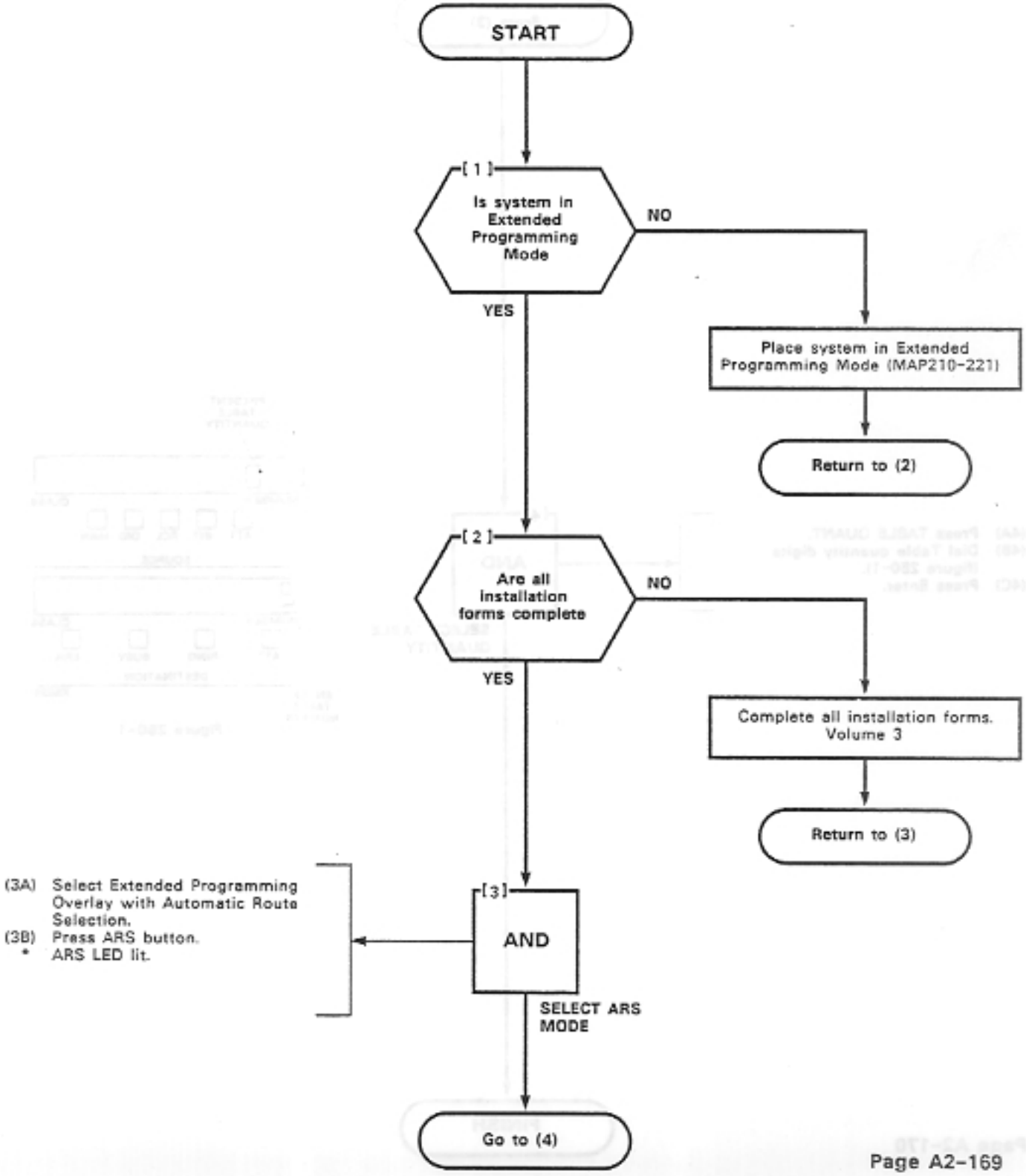

CODE TABLE QUANTITY SELECTION OR CHANGE
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From (3)

[4]

AND

(4A) Press TABLE QUANT.
(4B) Dial Table quantity digits (figure 250-1).
(4C) Press Enter.

SELECT TABLE QUANTITY

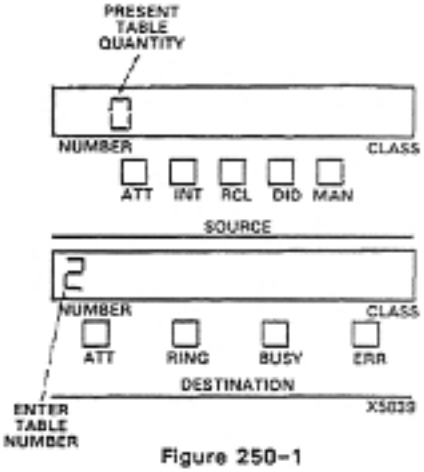

Figure 250-1

FINISH

AREA CODE TABLE PROGRAMMING
MAP210-251
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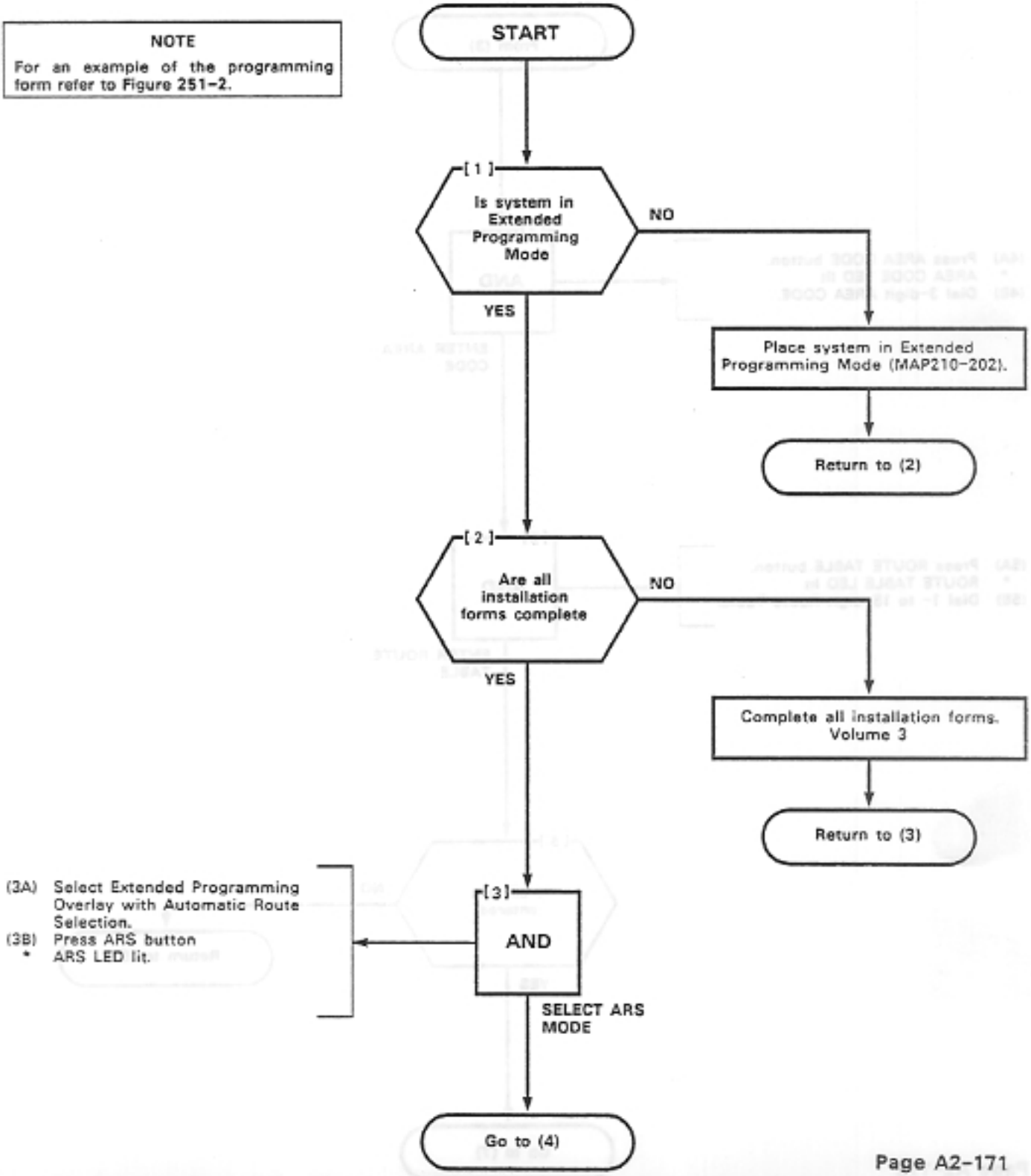
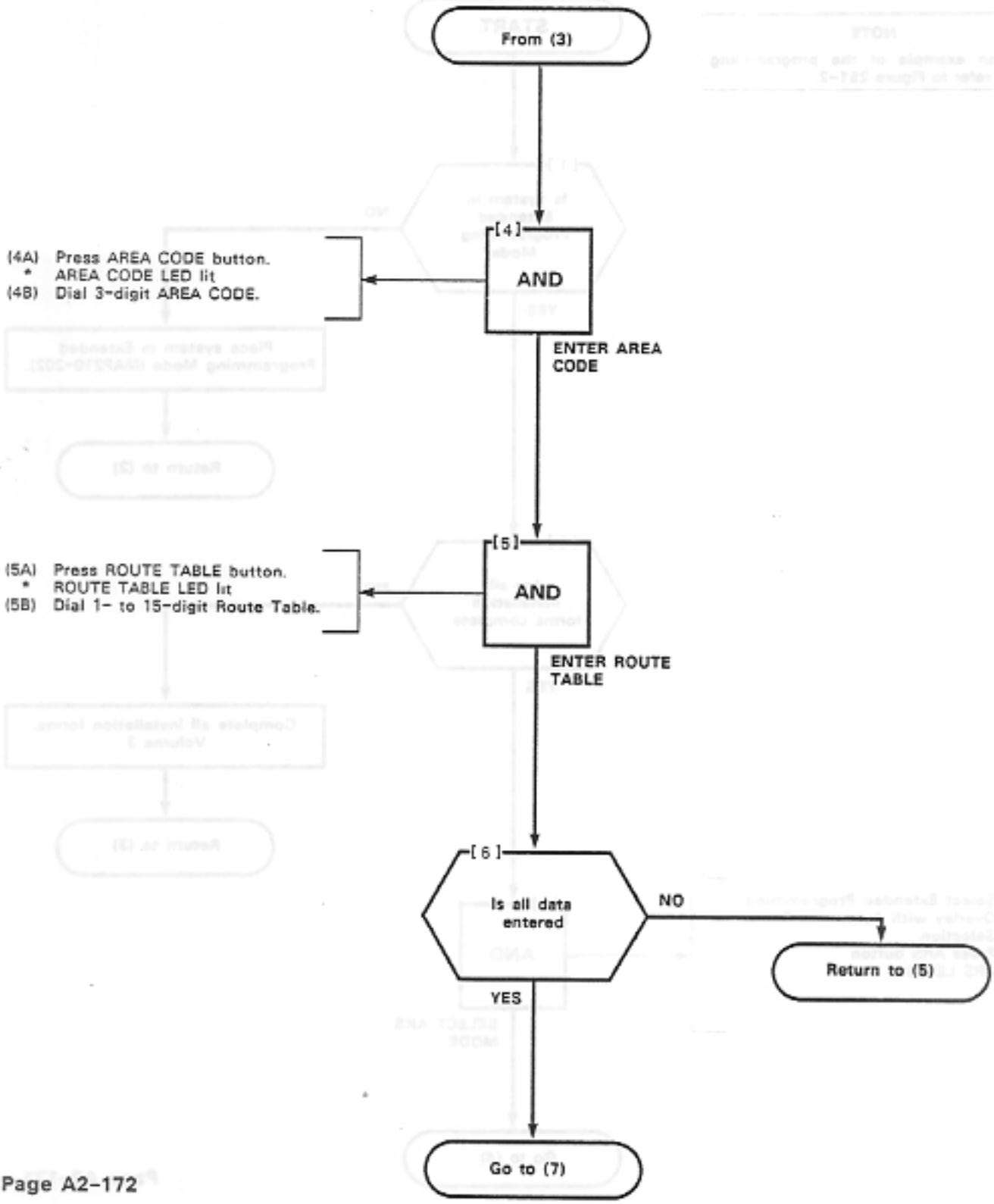
NOTE

For an example of the programming form refer to Figure 251-2.



AREA CODE TABLE PROGRAMMING
MAP210- 251
Issue 1, September 1983
Sheet 2 of 4



AREA CODE TABLE PROGRAMMING
MAP210-251
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From (6)

[7]

AND

(7A) Press ENTER (Figure 251-1).

ENTER DATA
(FIGURE 251-1)

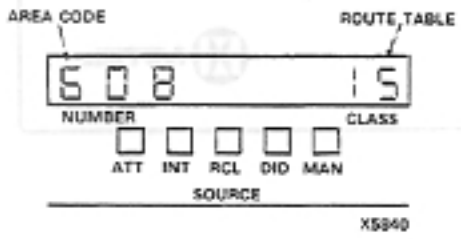
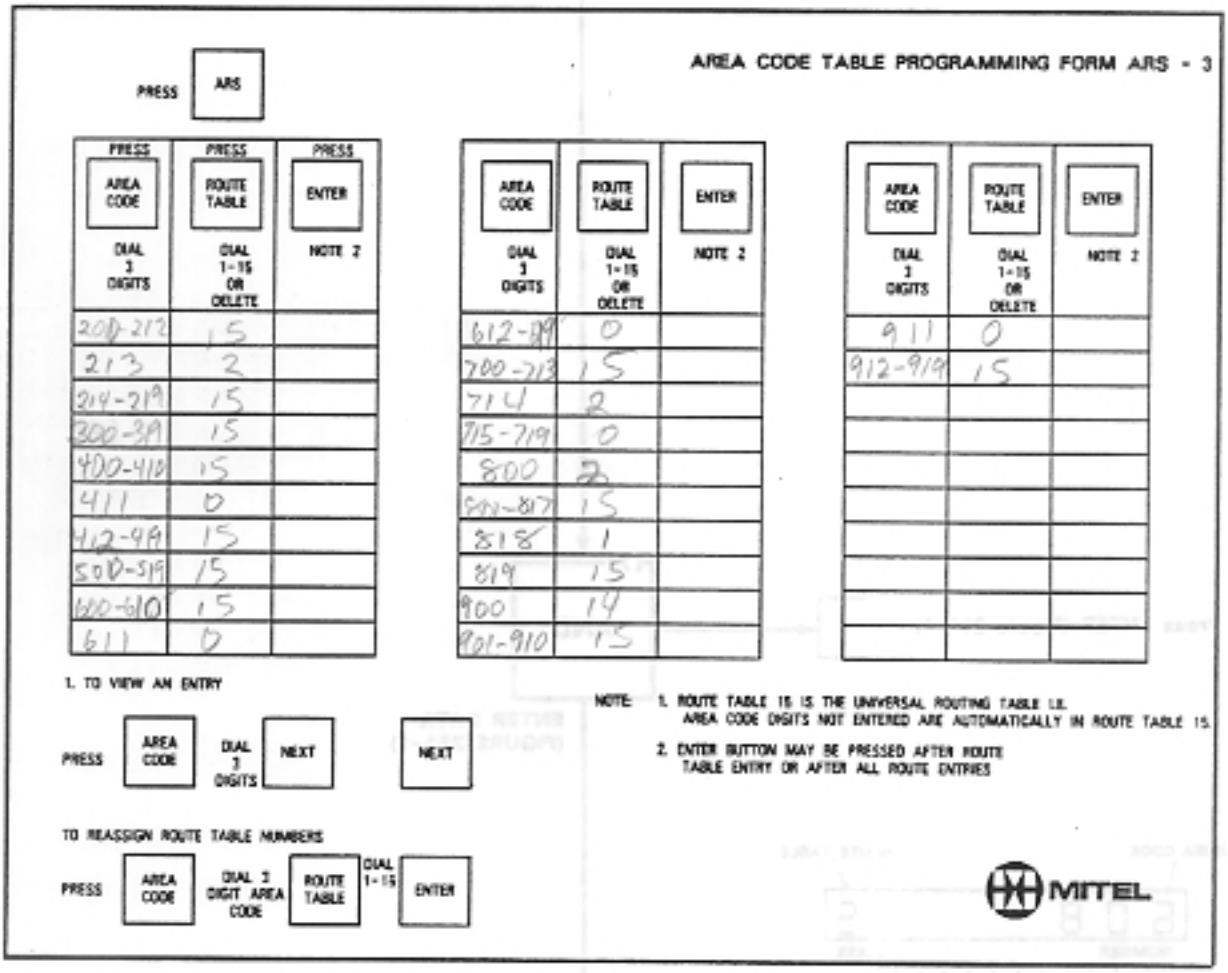


Figure 251-1

FINISH



AREA CODE TABLE PROGRAMMING FORM ARS - 3

PRESS [ARS]

PRESS AREA CODE — DIAL 3 DIGITS	PRESS ROUTE TABLE — DIAL 1-15 OR DELETE	PRESS ENTER — NOTE 2
200-212	15	
213	2	
214-219	15	
300-399	15	
400-410	15	
411	0	
412-499	15	
500-519	15	
600-610	15	
611	0	

AREA CODE — DIAL 3 DIGITS	ROUTE TABLE — DIAL 1-15 OR DELETE	ENTER — NOTE 2
612-699	0	
700-713	15	
714	2	
715-799	0	
800	2	
801-817	15	
818	1	
819	15	
900	14	
901-910	15	

AREA CODE — DIAL 3 DIGITS	ROUTE TABLE — DIAL 1-15 OR DELETE	ENTER — NOTE 2
911	0	
912-919	15	

1. TO VIEW AN ENTRY

PRESS [AREA CODE] DIAL 3 DIGITS [NEXT] [NEXT]

TO REASSIGN ROUTE TABLE NUMBERS

PRESS [AREA CODE] DIAL 3 DIGIT AREA CODE [ROUTE TABLE] DIAL 1-15 [ENTER]

NOTE: 1. ROUTE TABLE 15 IS THE UNIVERSAL ROUTING TABLE I.E. AREA CODE DIGITS NOT ENTERED ARE AUTOMATICALLY IN ROUTE TABLE 15.

2. ENTER BUTTON MAY BE PRESSED AFTER ROUTE TABLE ENTRY OR AFTER ALL ROUTE ENTRIES

MITEL

REVIEW AREA CODE TABLE PROGRAMMING
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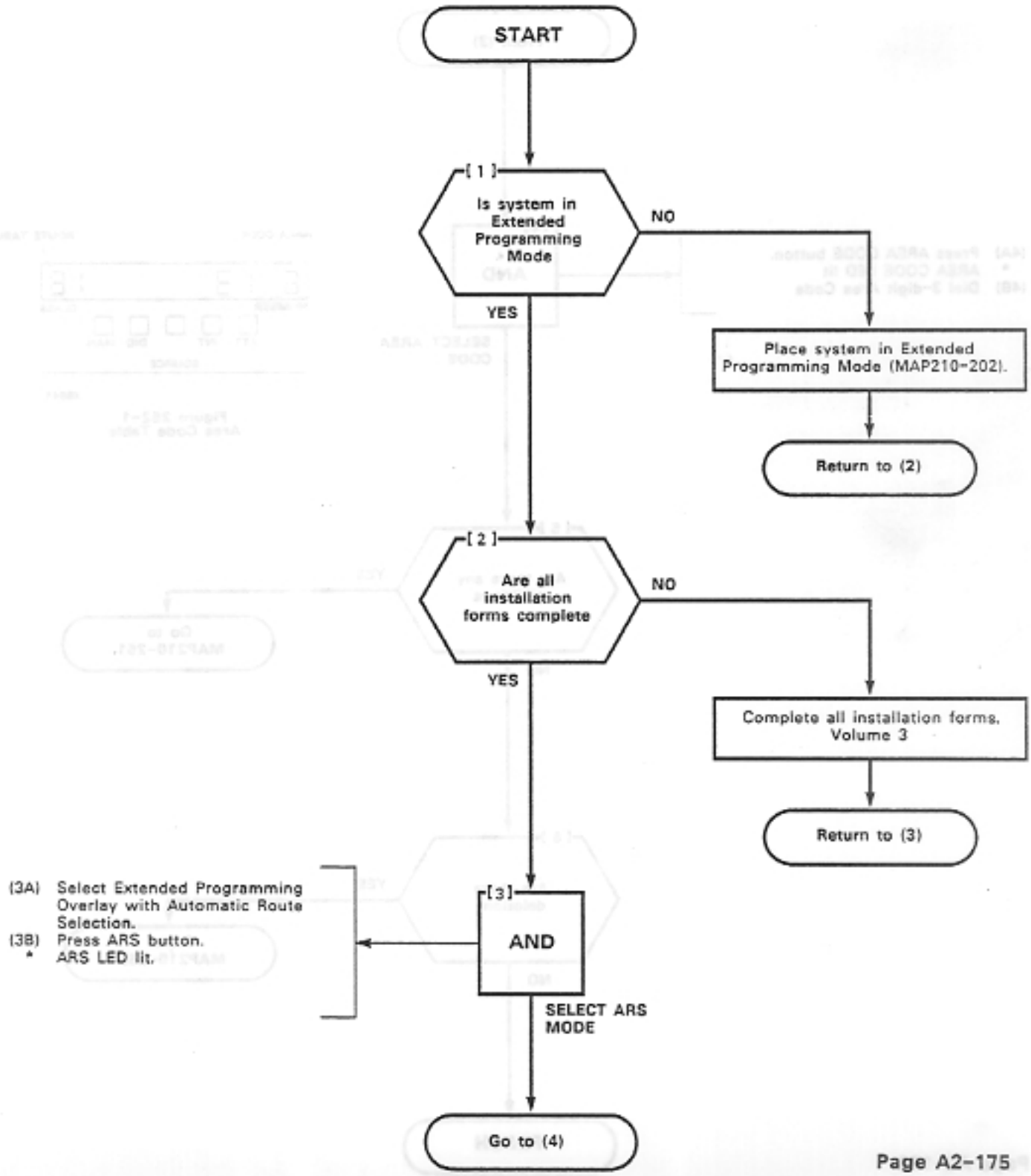
Sheet 1 of 2



REVIEW AREA CODE TABLE PROGRAMMING
MAP210- 252
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Sheet 2 of 2

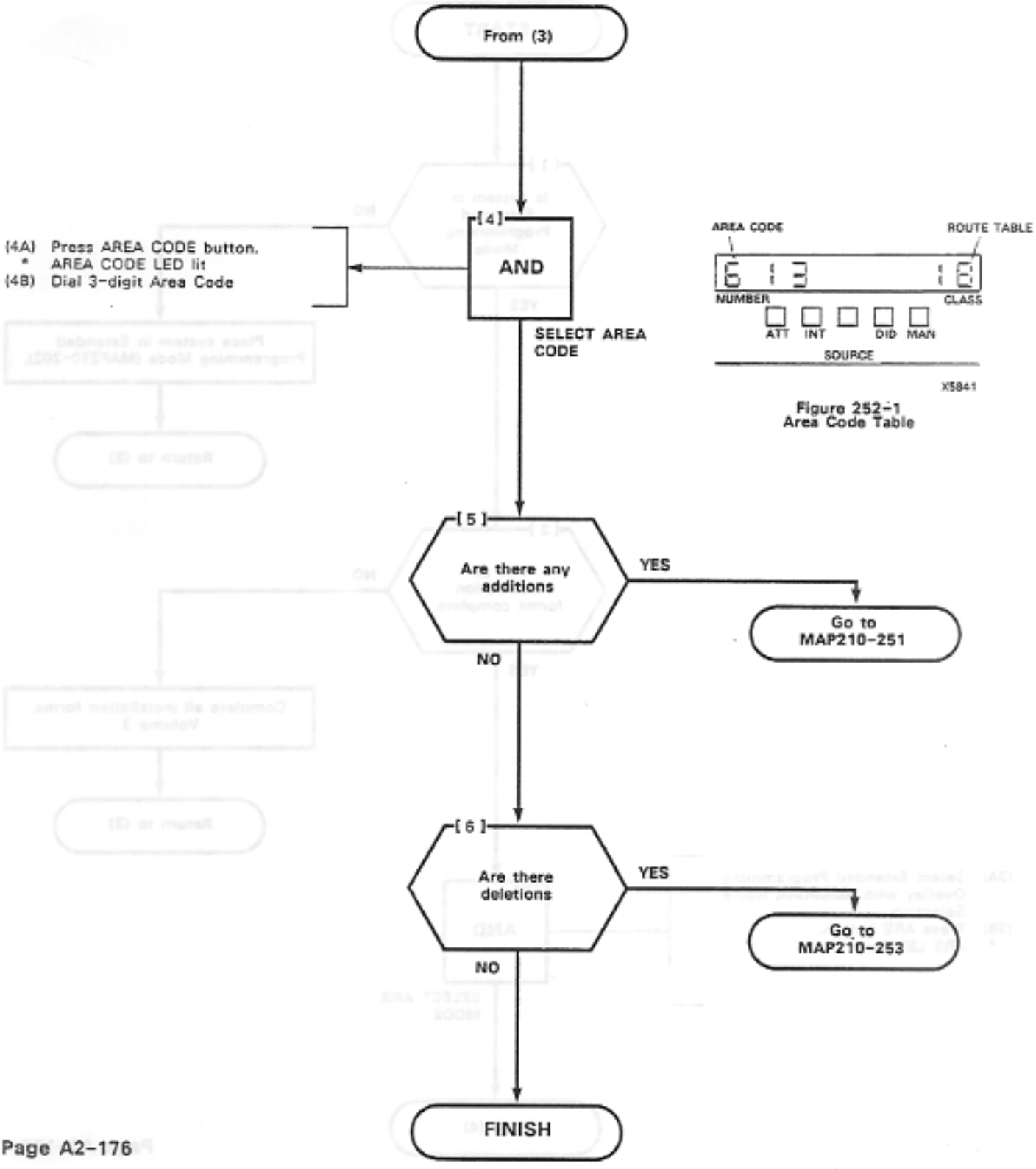
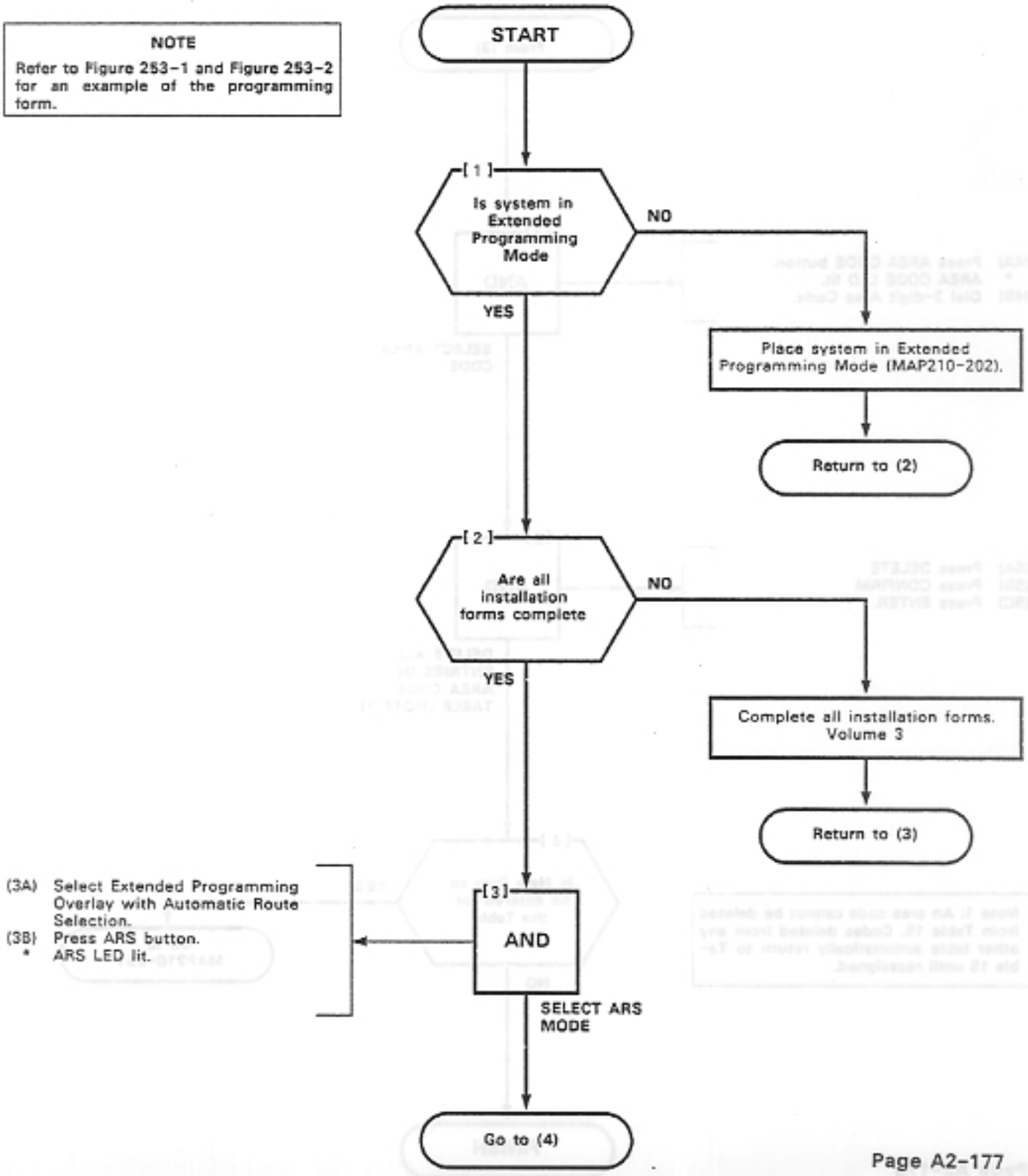


Figure 252-1
Area Code Table

DELETE AN AREA CODE TABLE
MAP210-253
Issue 1, September 1983
Sheet 1 of 5

NOTE

Refer to Figure 253-1 and Figure 253-2 for an example of the programming form.



DELETE AN AREA CODE TABLE
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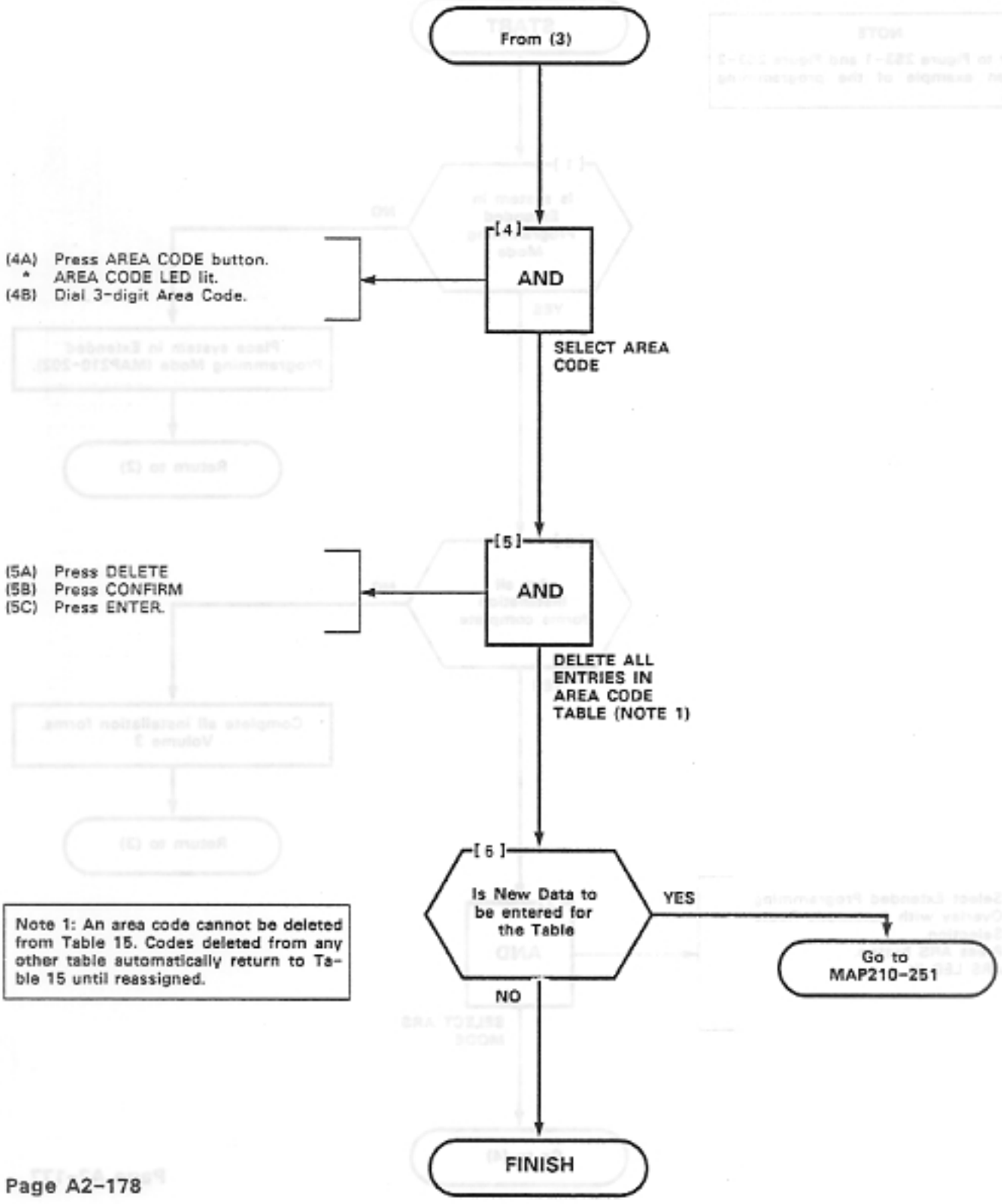
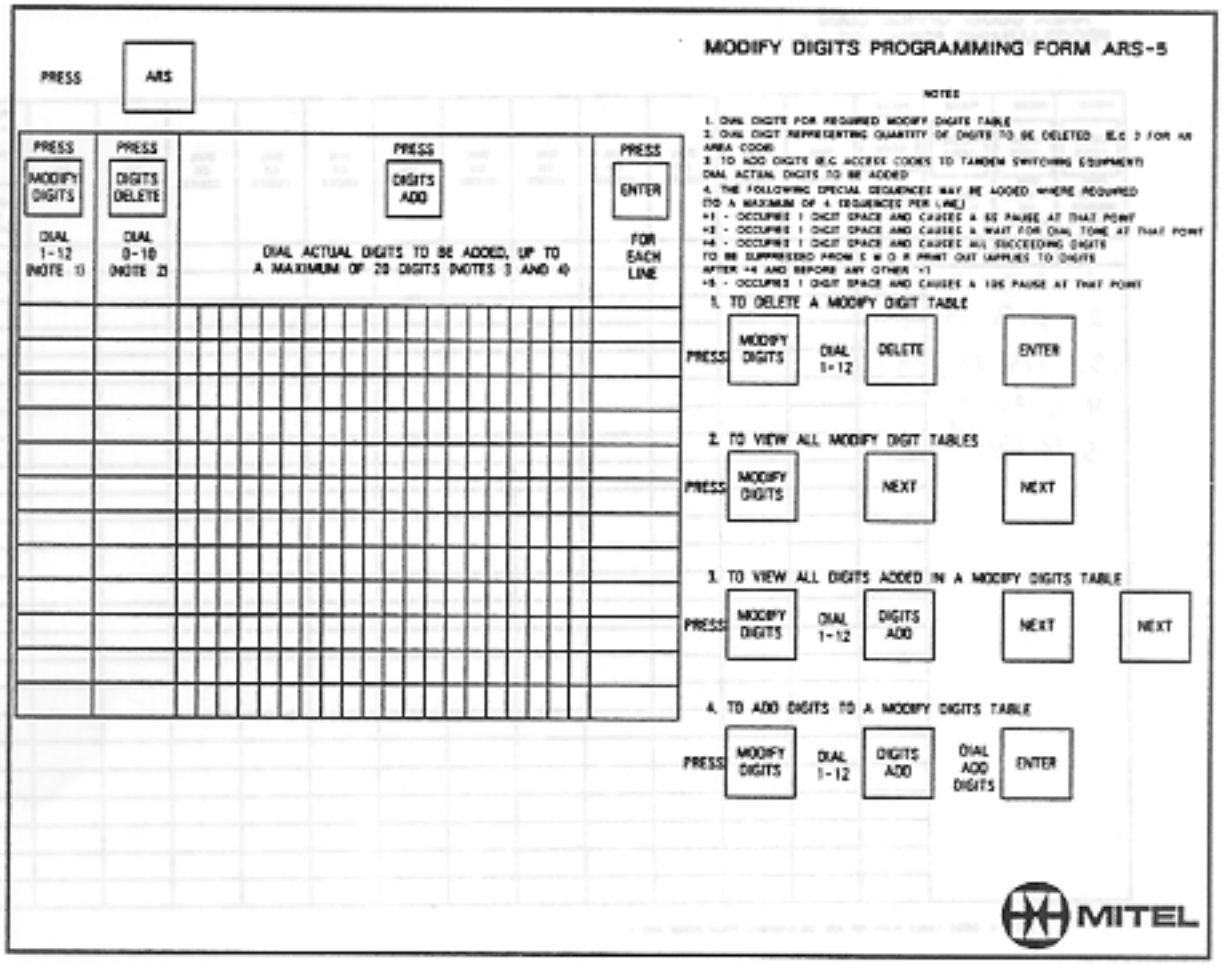


Note 1: An area code cannot be deleted from Table 15. Codes deleted from any other table automatically return to Table 15 until reassigned.

AREA CODE/ OFFICE CODE
PROGRAMMING FORM ARS 4A

PRESS CODE TABLE — DIAL TABLE NUMBER (NOTE 1)	PRESS AREA CODE — DIAL 3 DIGIT OR DELETE	PRESS ROUTE TABLE — DIAL 1-15	PRESS OFFICE CODE — DIAL 3 DIGIT CODES OR DELETE	DIAL CO CODES	DIAL CO CODES	DIAL CO CODES	DIAL CO CODES	DIAL CO CODES	DIAL CO CODES	DIAL CO CODES	DIAL CO CODES	DIAL CO CODES	DIAL CO CODES	DIAL CO CODES	DIAL CO CODES	PRESS ENTER AFTER ALL ENTRIES
1. 213	3		555													
2. 213	14		976													
3. 714	14		976													
4. 619	14		976													
5. 916	14		976													

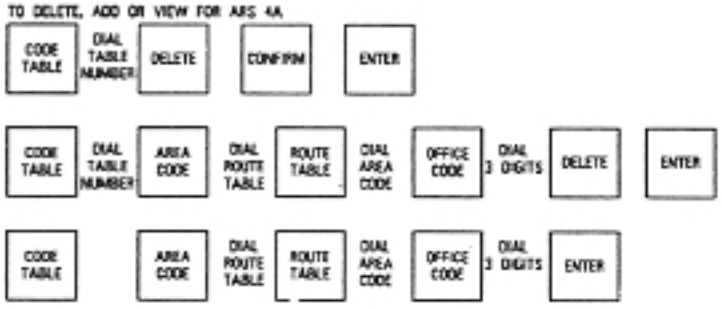
NOTE 1. CODE TABLE NUMBERS ARE DETERMINED FROM FORM ARS-1


MODIFY DIGITS PROGRAMMING FORM ARS-5
PRESS
ARS
PRESS
MODIFY DIGITS
DIAL 1-12 (NOTE 1)
PRESS
DIGITS DELETE
DIAL 0-10 (NOTE 2)
PRESS
DIGITS ADD
DIAL ACTUAL DIGITS TO BE ADDED, UP TO A MAXIMUM OF 20 DIGITS (NOTES 3 AND 4)
PRESS
ENTER
FOR EACH LINE
NOTES
1. DIAL DIGITS FOR REQUIRED MODIFY DIGITS TABLE
2. DIAL DIGIT REPRESENTING QUANTITY OF DIGITS TO BE DELETED. IE: 3 FOR AN AREA CODE
3. TO ADD DIGITS (E.G. ACCESS CODES TO TANDEM SWITCHING EQUIPMENT) DIAL ACTUAL DIGITS TO BE ADDED
4. THE FOLLOWING SPECIAL SEQUENCES MAY BE ADDED WHERE REQUIRED (TO A MAXIMUM OF 4 SEQUENCES PER LINE)
+1 - OCCUPIES 1 DIGIT SPACE AND CAUSES A 2S PAUSE AT THAT POINT
+2 - OCCUPIES 1 DIGIT SPACE AND CAUSES A WAIT FOR DIAL TONE AT THAT POINT
+4 - OCCUPIES 1 DIGIT SPACE AND CAUSES ALL SUCCEEDING DIGITS TO BE SUPPRESSED FROM E.M.D.R. PRINT OUT (APPLIES TO DIGITS AFTER +4 AND BEFORE ANY OTHER +1)
+5 - OCCUPIES 1 DIGIT SPACE AND CAUSES A 10S PAUSE AT THAT POINT
1. TO DELETE A MODIFY DIGIT TABLE
PRESS MODIFY DIGITS DIAL 1-12 DELETE ENTER
2. TO VIEW ALL MODIFY DIGIT TABLES
PRESS MODIFY DIGITS NEXT NEXT
3. TO VIEW ALL DIGITS ADDED IN A MODIFY DIGITS TABLE
PRESS MODIFY DIGITS DIAL 1-12 DIGITS ADD NEXT NEXT
4. TO ADD DIGITS TO A MODIFY DIGITS TABLE
PRESS MODIFY DIGITS DIAL 1-12 DIGITS ADD DIAL ADD DIGITS ENTER
MITEL

AREA CODE/OFFICE CODE
PROGRAMMING FORM ARS 48

FOR LOCAL AREA CODE

TO DELETE, ADD OR VIEW FOR ARS 4A



TO VIEW OFFICE WIDE TABLE

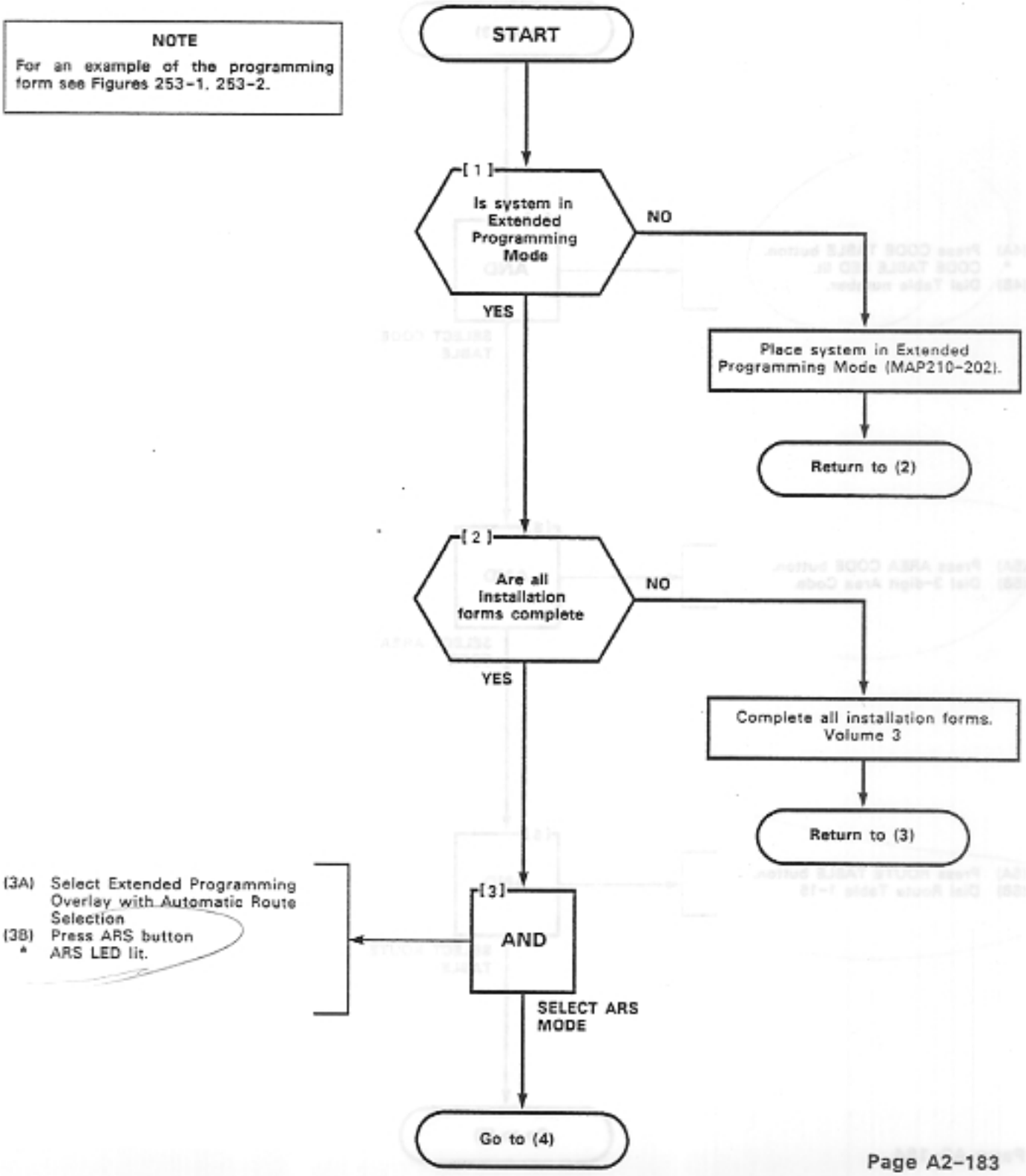
TO VIEW OFFICE CODE ENTRIES

MITEL

AREA CODE/OFFICE CODE PROGRAMMING
MAP210-254
Issue 1, September 1983
Sheet 1 of 4

NOTE

For an example of the programming form see Figures 253-1, 253-2.



AREA CODE/OFFICE CODE PROGRAMMING
MAP210- 254
Issue 1, September 1983
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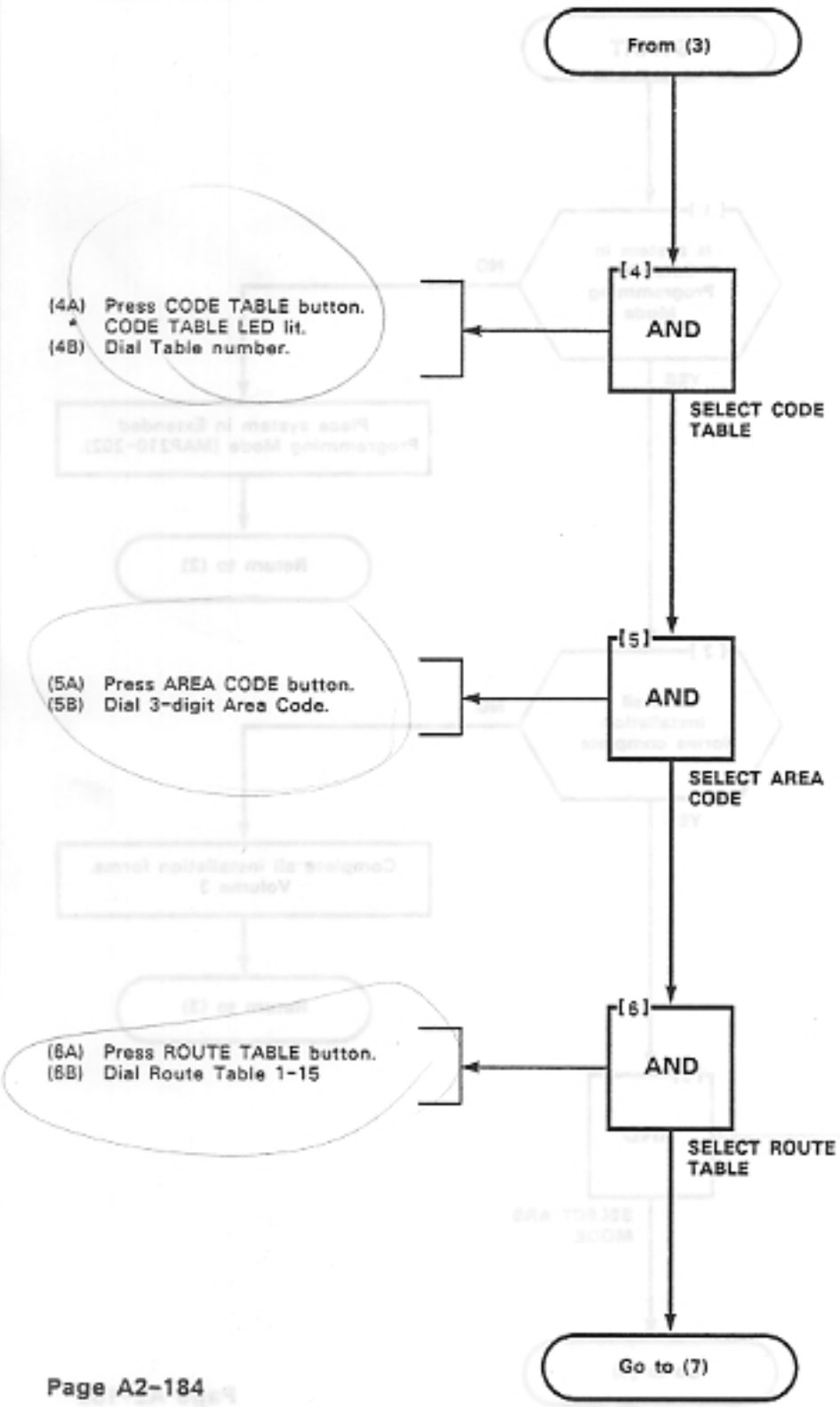

AREA CODE/OFFICE CODE PROGRAMMING
MAP210-254
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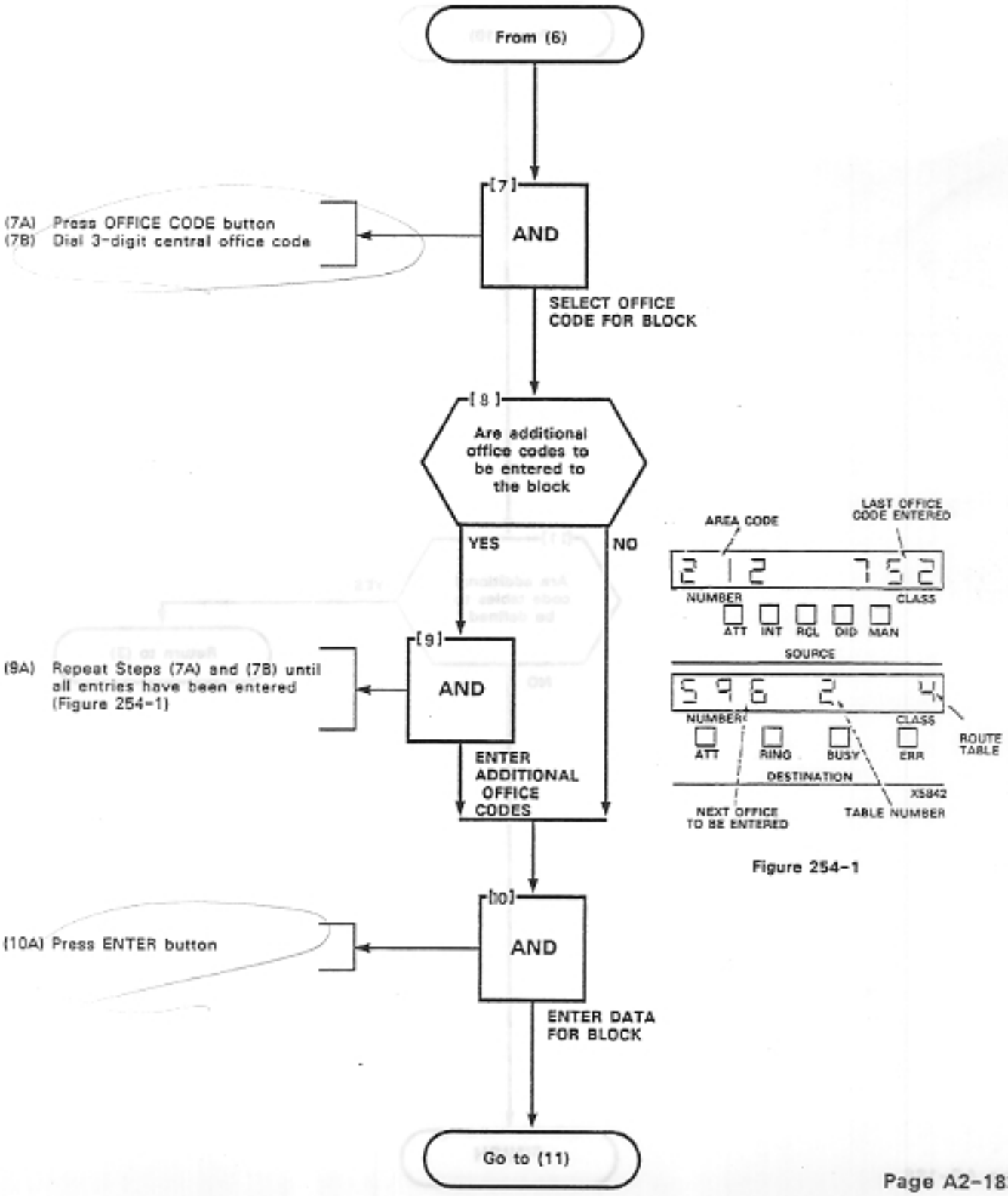

Figure 254-1

AREA CODE/OFFICE CODE PROGRAMMING
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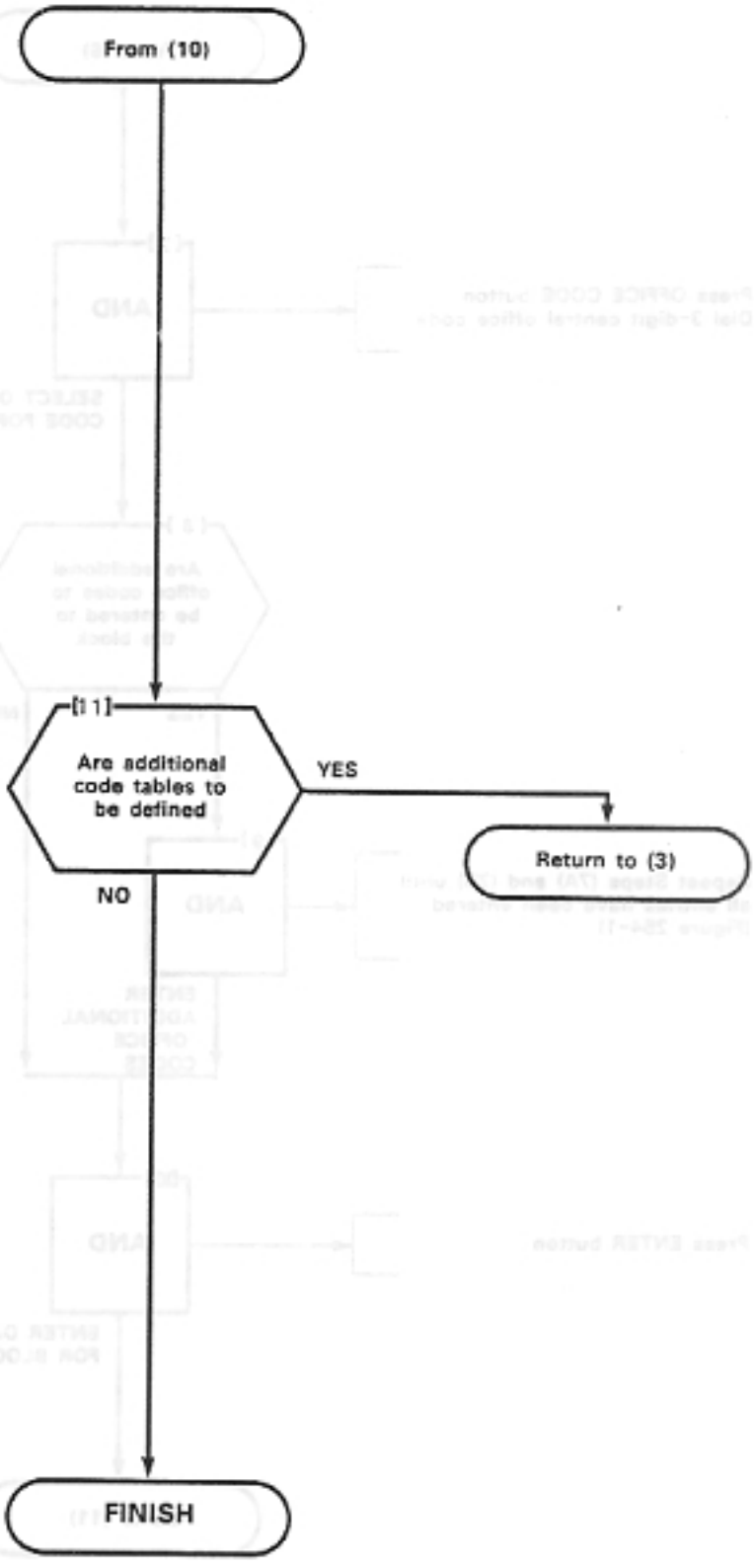
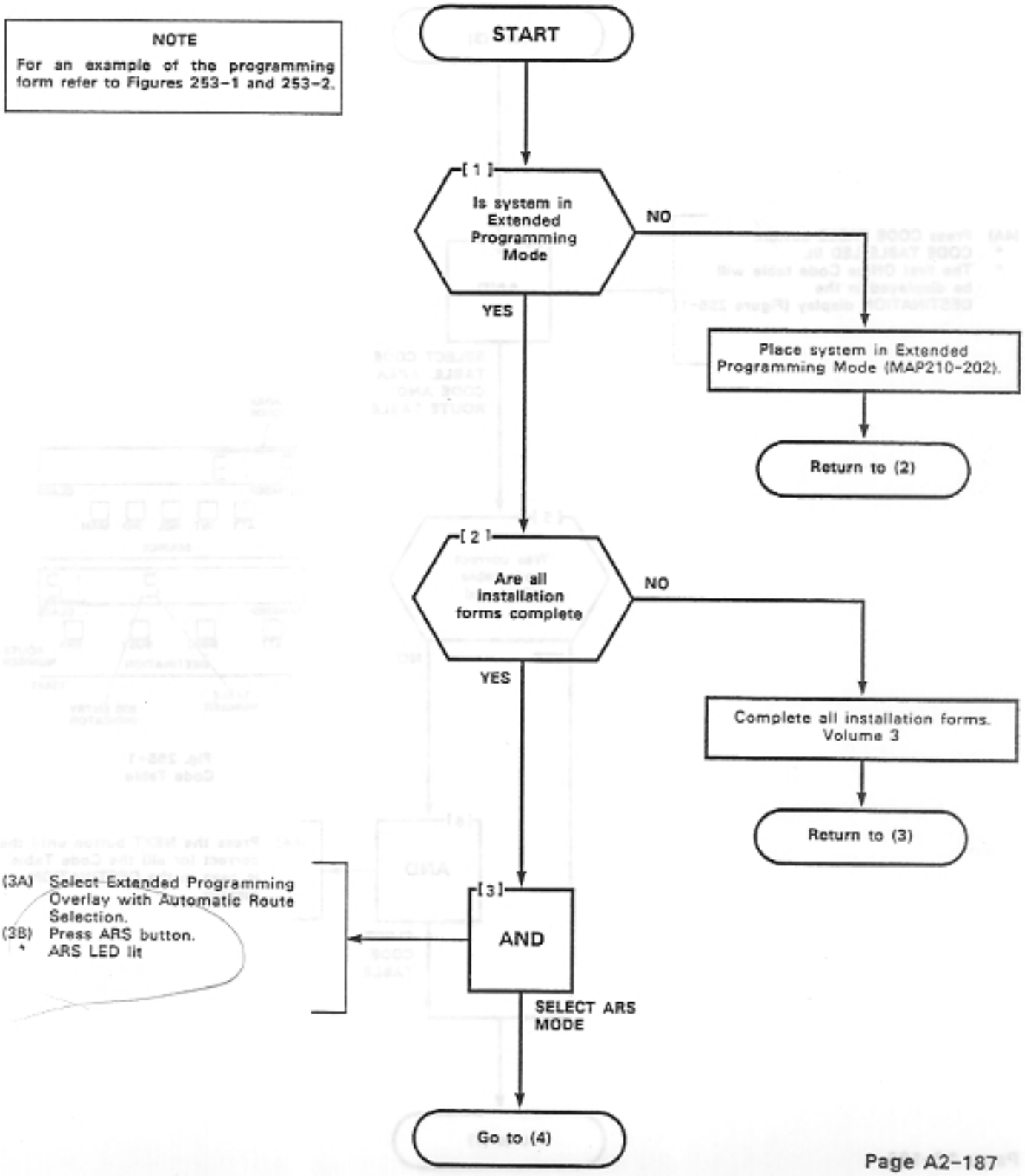


REVIEW OR DELETE PART OR ALL AREA CODE/OFFICE CODE
MAP210-255
Issue 1, September 1983
Sheet 1 of 4

NOTE

For an example of the programming form refer to Figures 253-1 and 253-2.



REVIEW OR DELETE PART OR ALL AREA CODE/OFFICE CODE
MAP210- 255
Issue 1, September 1983
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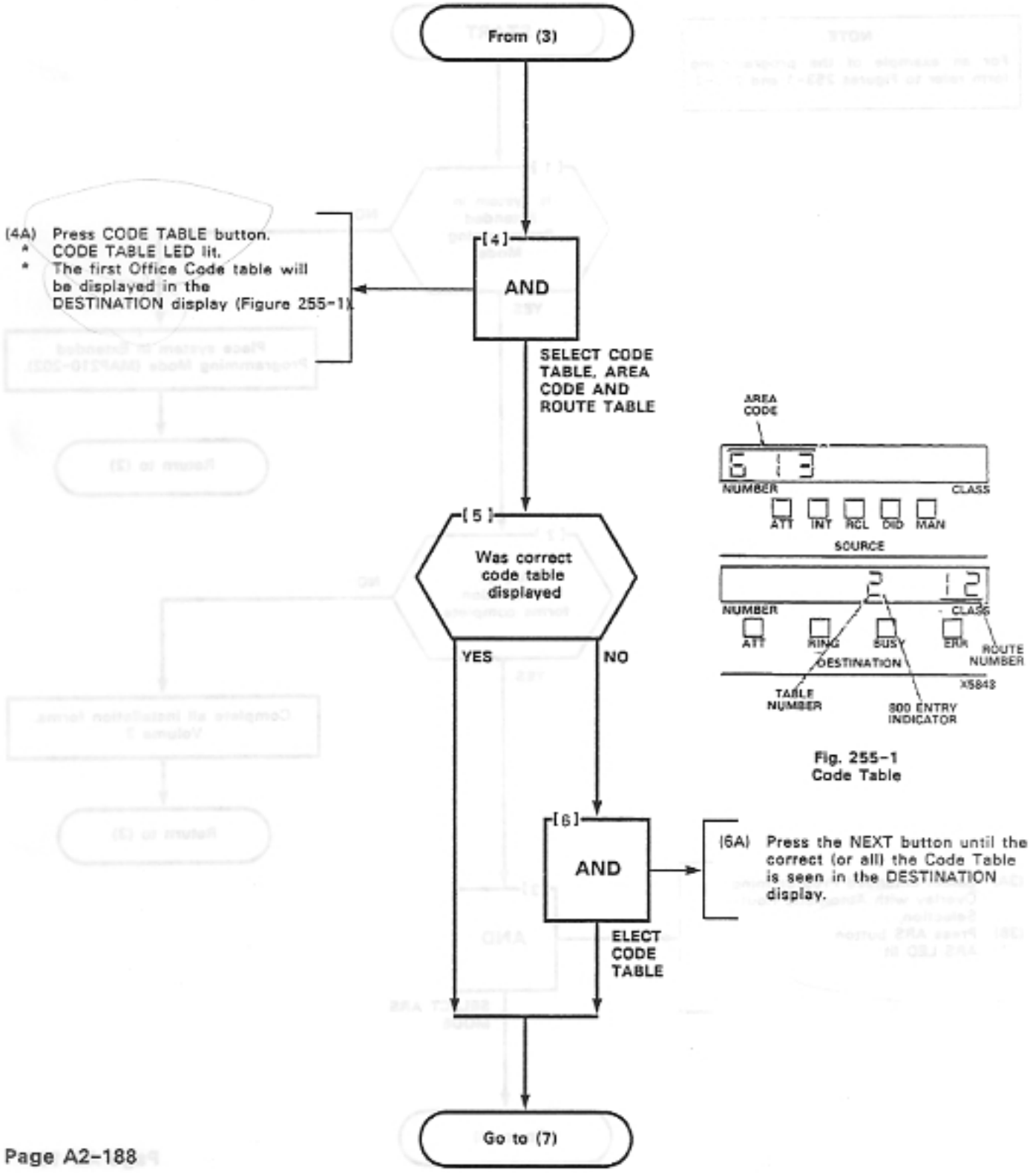

Fig. 255-1
Code Table

REVIEW OR DELETE PART OR ALL AREA CODE/OFFICE CODE
MAP210-255
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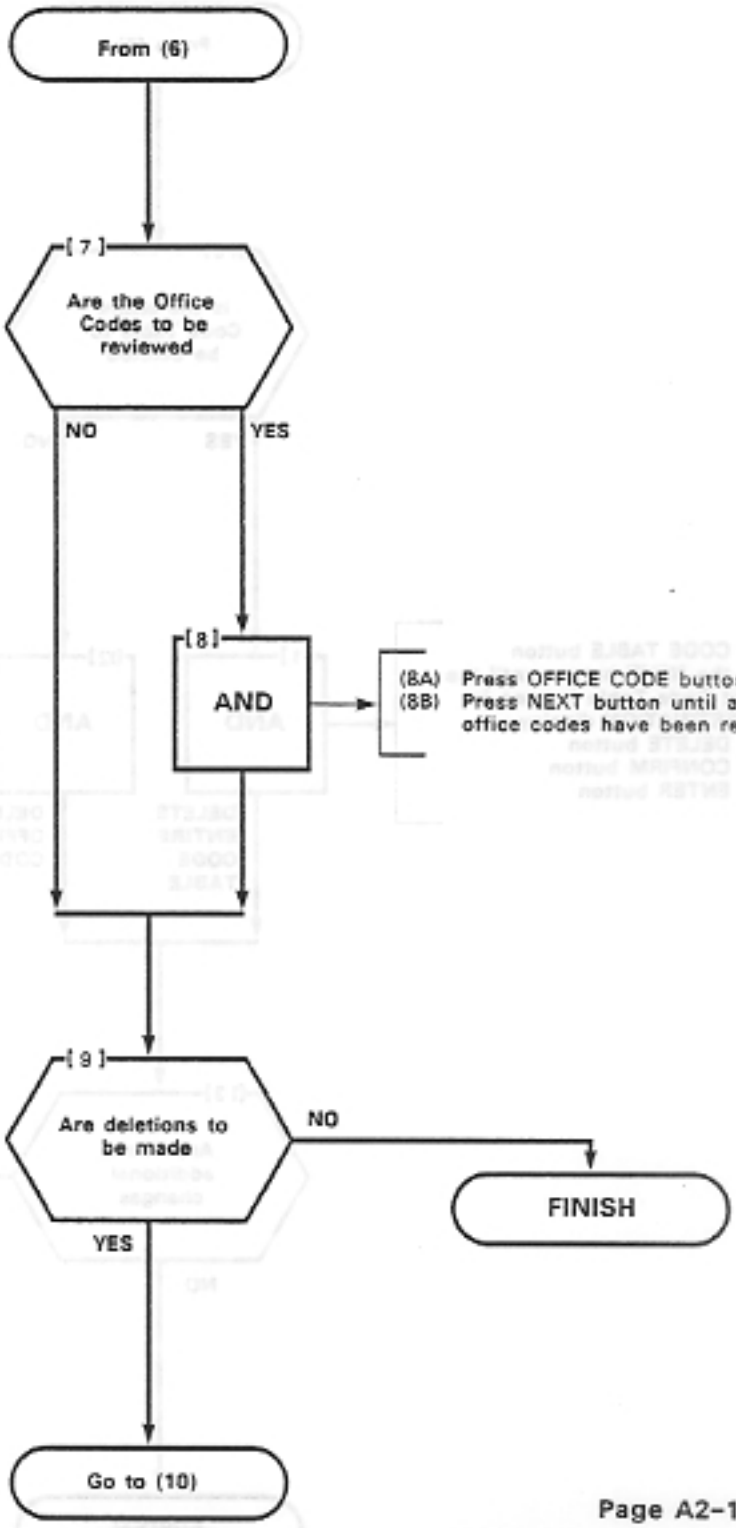

REVIEW OR DELETE PART OR ALL AREA CODE/OFFICE CODE
MAP210- 255
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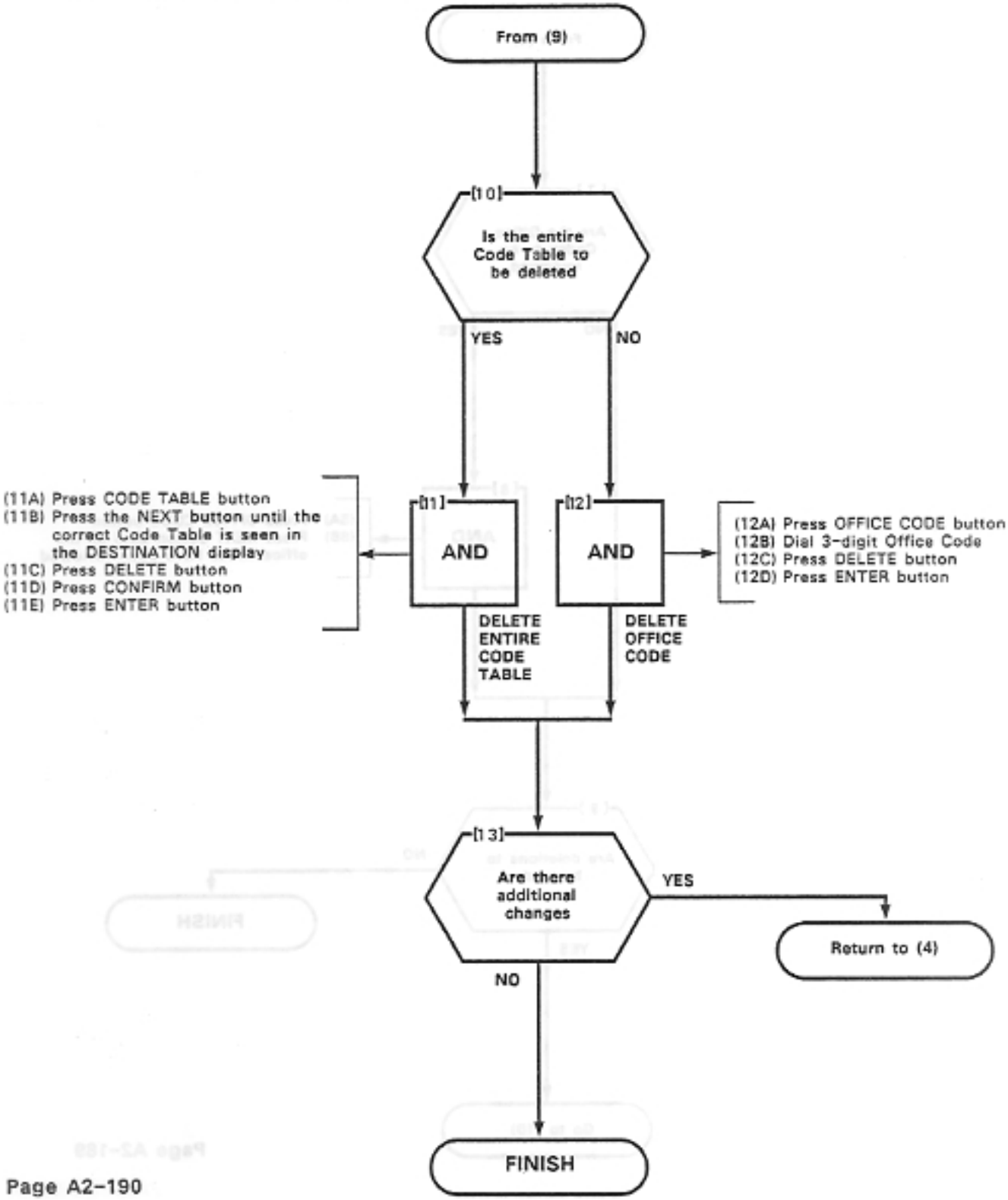
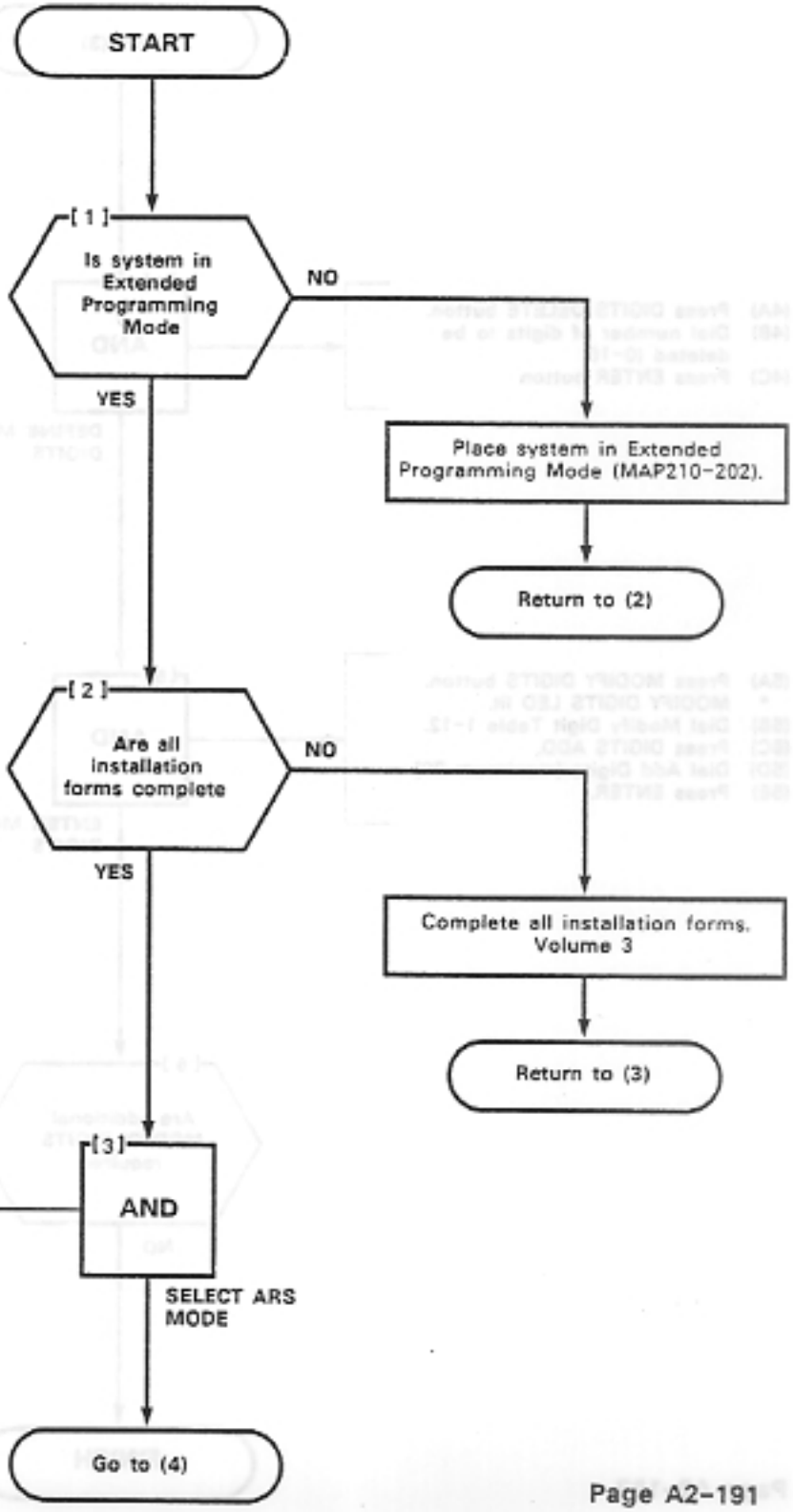


PROGRAM MODIFY DIGITS
MAP210-256
Issue 1, September 1983
Sheet 1 of 3

NOTE
Refer to Fig. 256-1 for an example of the programming form.



PROGRAM MODIFY DIGITS
MAP210- 256
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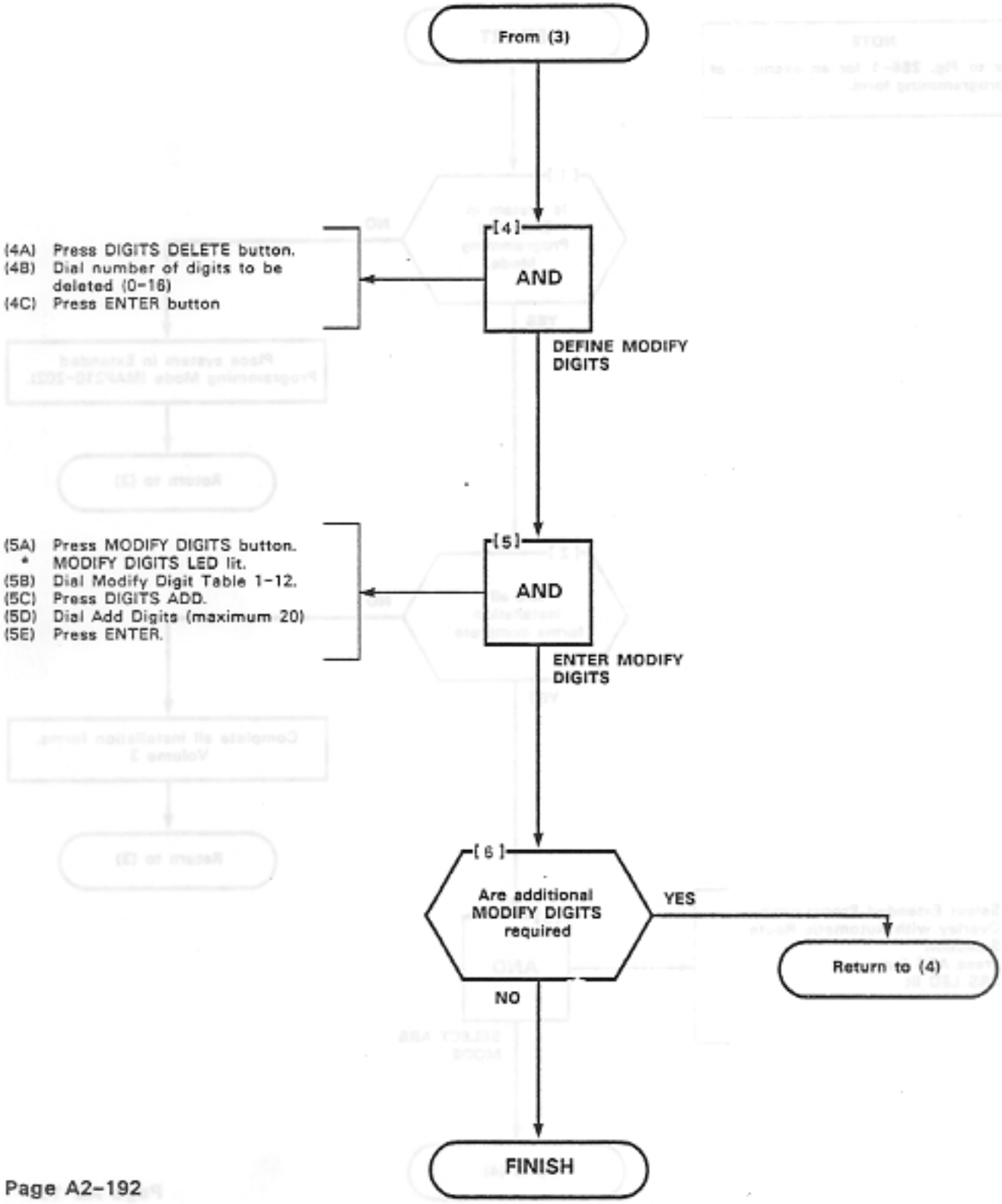


MODIFY DIGITS PROGRAMMING FORM ARS-5

PRESS [ARS]

PRESS [MODIFY DIGITS]	PRESS [DIGITS DELETE]	PRESS [DIGITS ADD]	PRESS [ENTER]
DIAL 1-12 (NOTE 1)	DIAL 0-10 (NOTE 2)	DIAL ACTUAL DIGITS TO BE ADDED, UP TO A MAXIMUM OF 20 DIGITS (NOTES 3 AND 4)	FOR EACH LINE

NOTES

1. DIAL DIGITS FOR REQUIRED MODIFY DIGITS TABLE
2. DIAL DIGIT REPRESENTING QUANTITY OF DIGITS TO BE DELETED (E.G. 3 FOR AN AREA CODE)
3. TO ADD DIGITS (E.G. ACCESS CODES TO TANDEM SWITCHING EQUIPMENT) DIAL ACTUAL DIGITS TO BE ADDED
4. THE FOLLOWING SPECIAL SEQUENCES MAY BE ADDED WHERE REQUIRED (TO A MAXIMUM OF 4 SEQUENCES PER LINE)
   - #1 - OCCUPIES 1 DIGIT SPACE AND CAUSES A 5S PAUSE AT THAT POINT
   - #2 - OCCUPIES 1 DIGIT SPACE AND CAUSES A WAIT FOR DIAL TONE AT THAT POINT
   - #4 - OCCUPIES 1 DIGIT SPACE AND CAUSES ALL SUCCEEDING DIGITS TO BE SUPPRESSED FROM S M D R PRINT OUT (APPLIES TO DIGITS AFTER #4 AND BEFORE ANY OTHER #)
   - #8 - OCCUPIES 1 DIGIT SPACE AND CAUSES A 10S PAUSE AT THAT POINT

1. TO DELETE A MODIFY DIGIT TABLE

PRESS [MODIFY DIGITS] DIAL 1-12 [DELETE] [ENTER]

2. TO VIEW ALL MODIFY DIGIT TABLES

PRESS [MODIFY DIGITS] [NEXT] [NEXT]

3. TO VIEW ALL DIGITS ADDED IN A MODIFY DIGITS TABLE

PRESS [MODIFY DIGITS] DIAL 1-12 [DIGITS ADD] [NEXT] [NEXT]

4. TO ADD DIGITS TO A MODIFY DIGITS TABLE

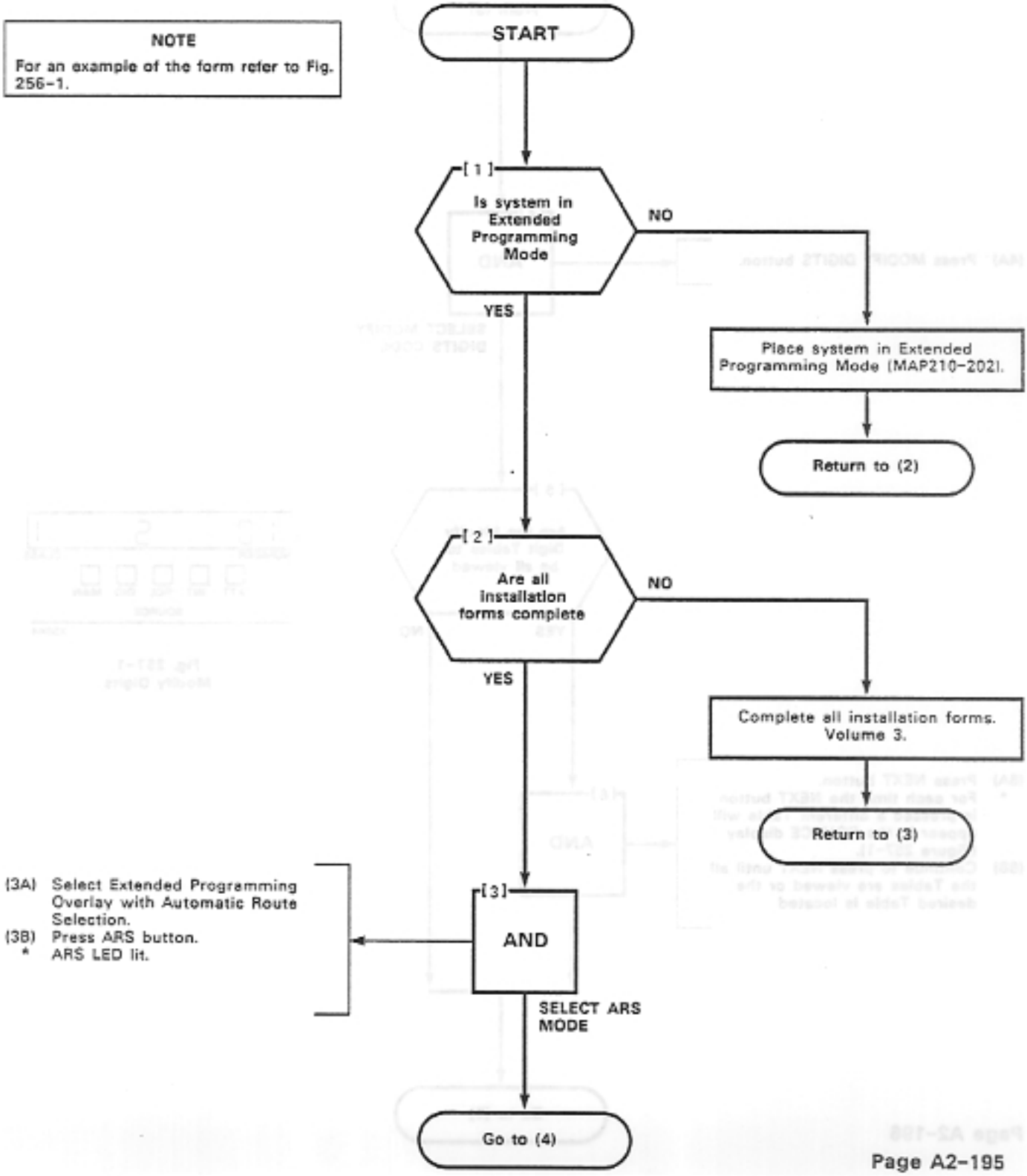
PRESS [MODIFY DIGITS] DIAL 1-12 [DIGITS ADD] DIAL ADD DIGITS [ENTER]

MITEL

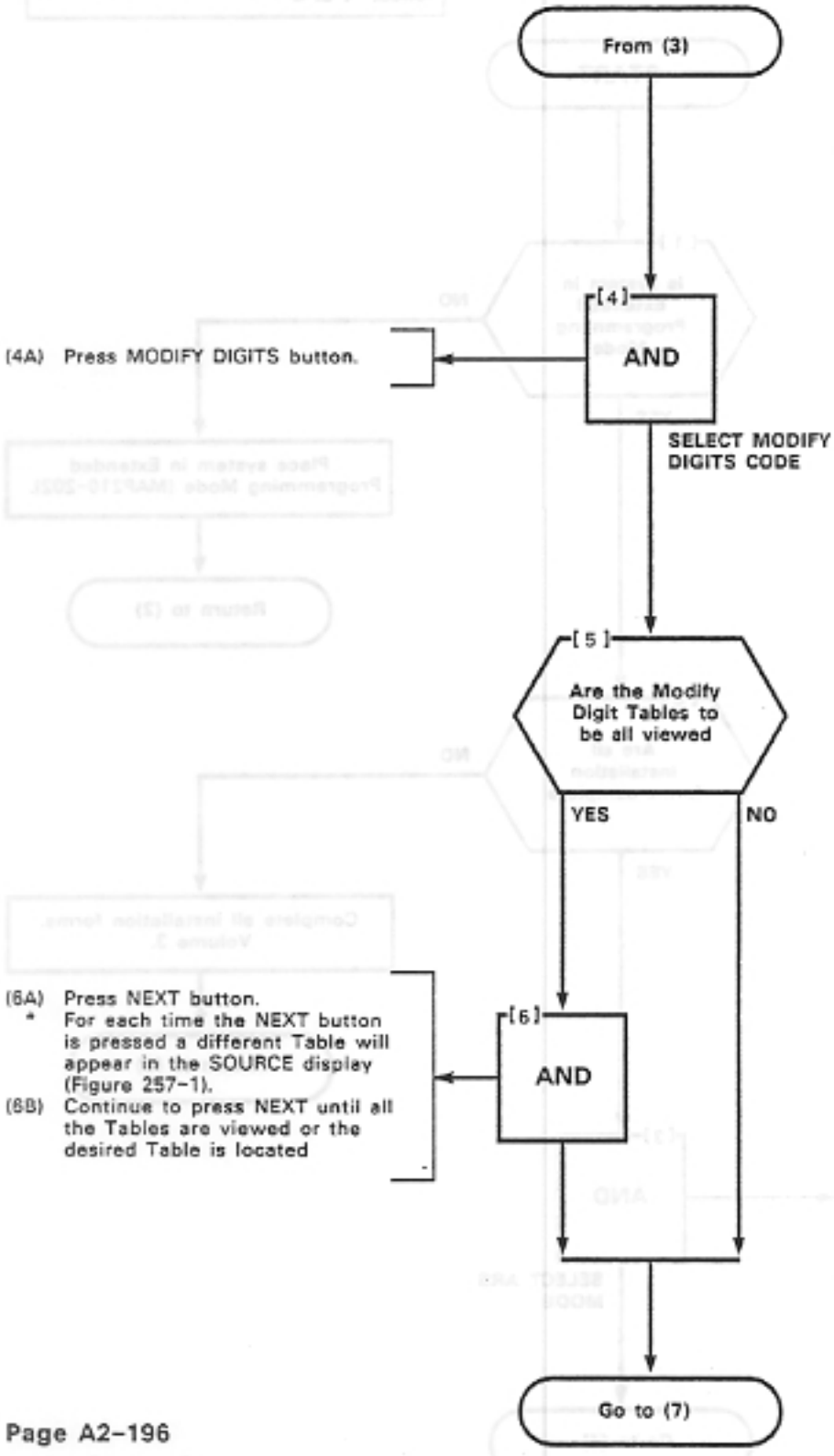
TO REVIEW OR DELETE MODIFY DIGIT TABLES
MAP210-257
Issue 1, September 1983
Sheet 1 of 4

NOTE

For an example of the form refer to Fig. 256-1.



TO REVIEW OR DELETE MODIFY DIGIT TABLES
MAP210- 257
Issue 1, September 1983
Sheet 2 of 4



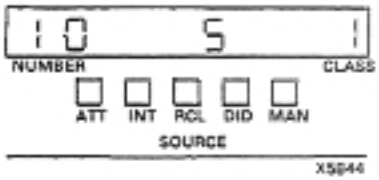


Fig. 257-1
Modify Digits

TO REVIEW OR DELETE MODIFY DIGIT TABLES
MAP210-257
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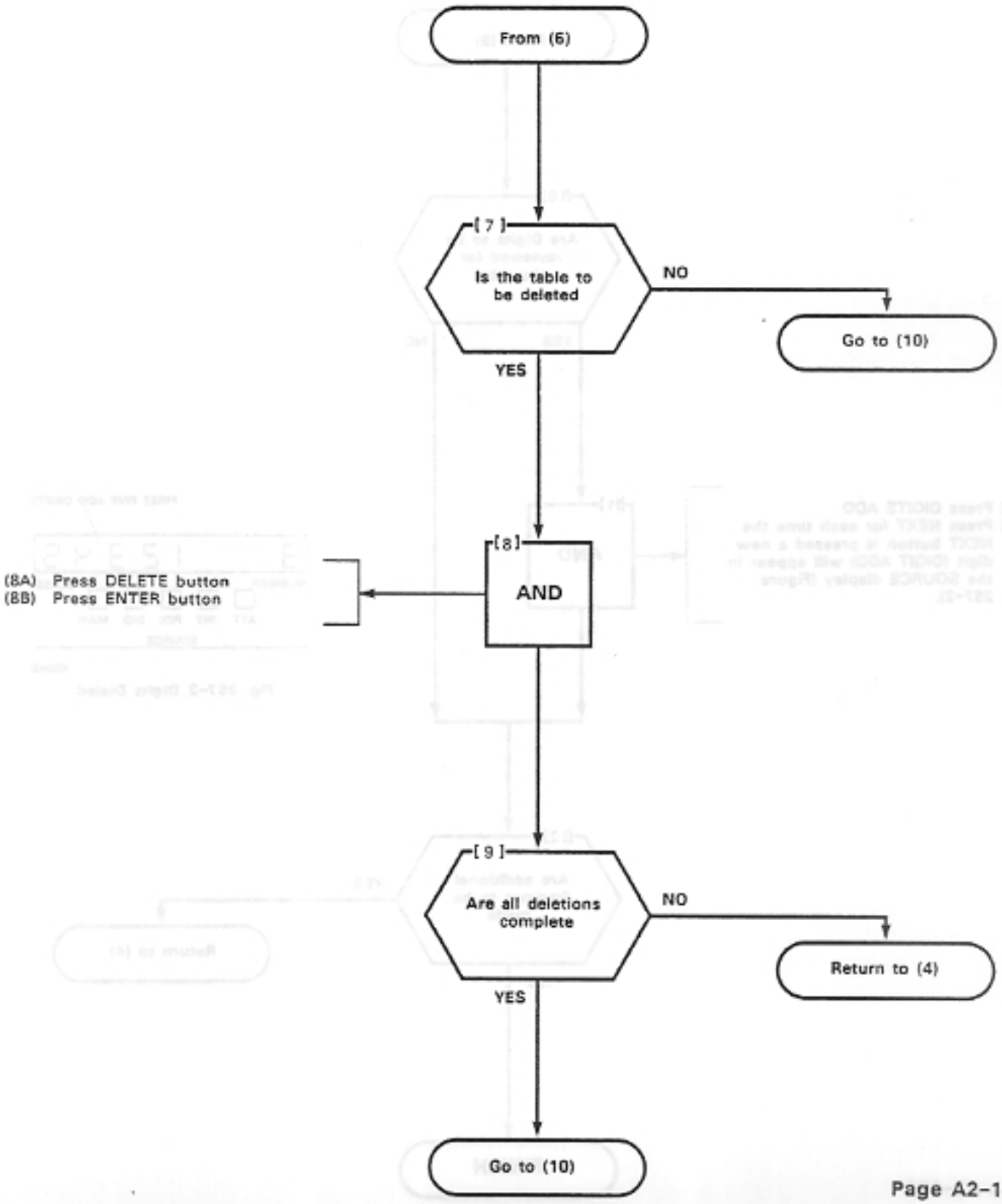


TO REVIEW OR DELETE MODIFY DIGIT TABLES
MAP210- 257
Issue 1, September 1983
Sheet 4 of 4

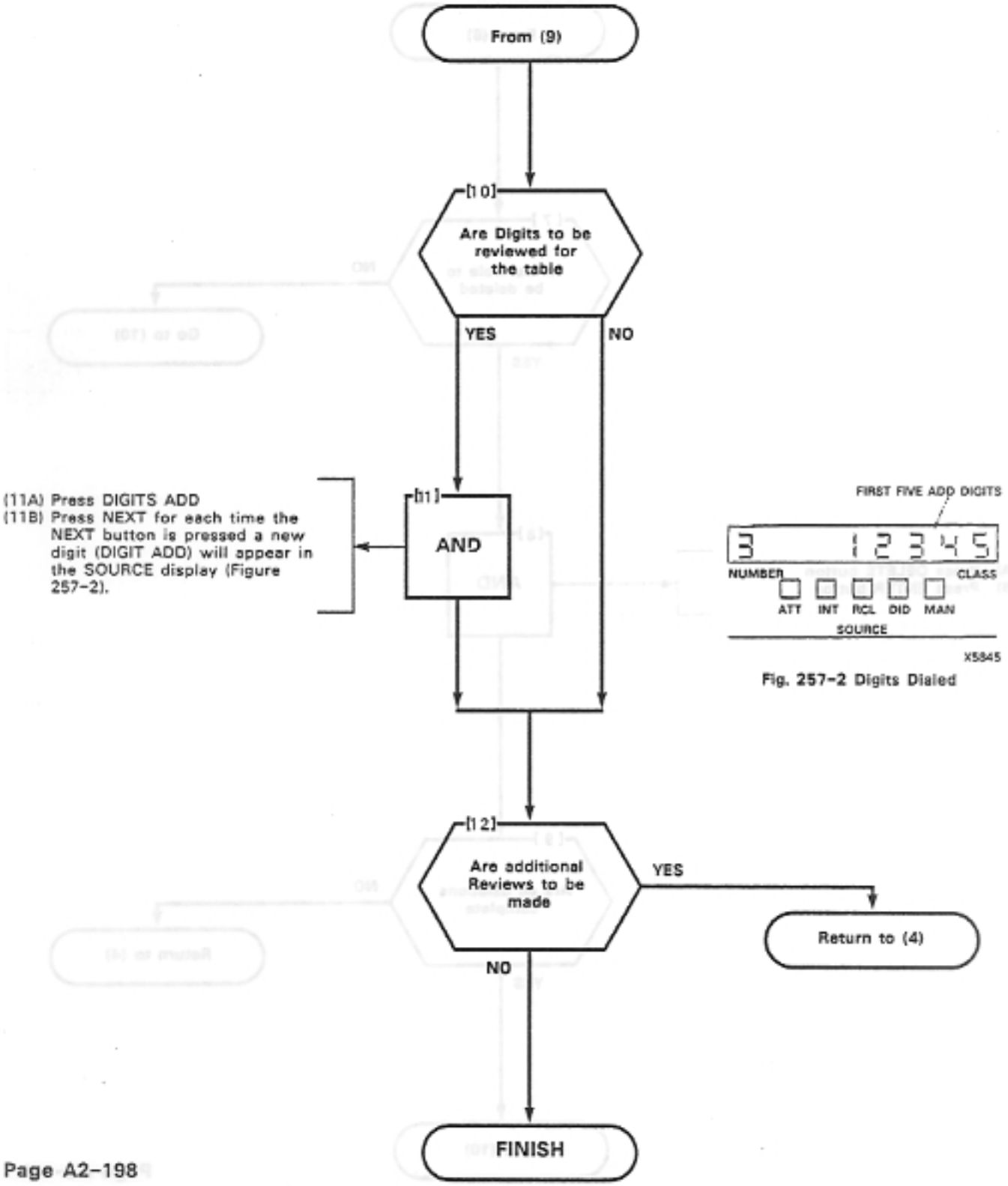
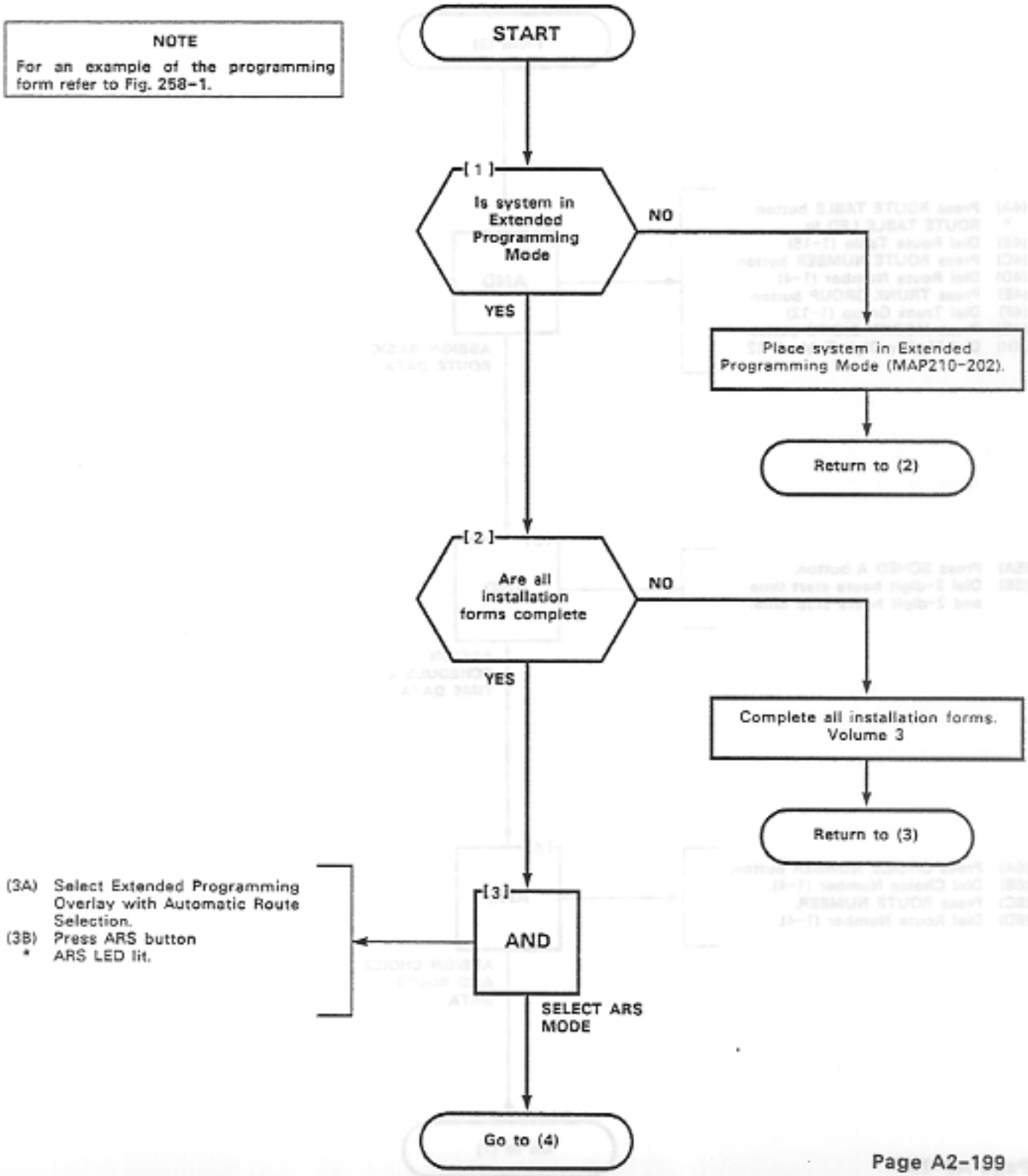


Fig. 257-2 Digits Dialed

ROUTE TABLE PROGRAMMING
MAP210-258
Issue 1, September 1983
Sheet 1 of 6

NOTE
For an example of the programming form refer to Fig. 258-1.



ROUTE TABLE PROGRAMMING
MAP210- 258
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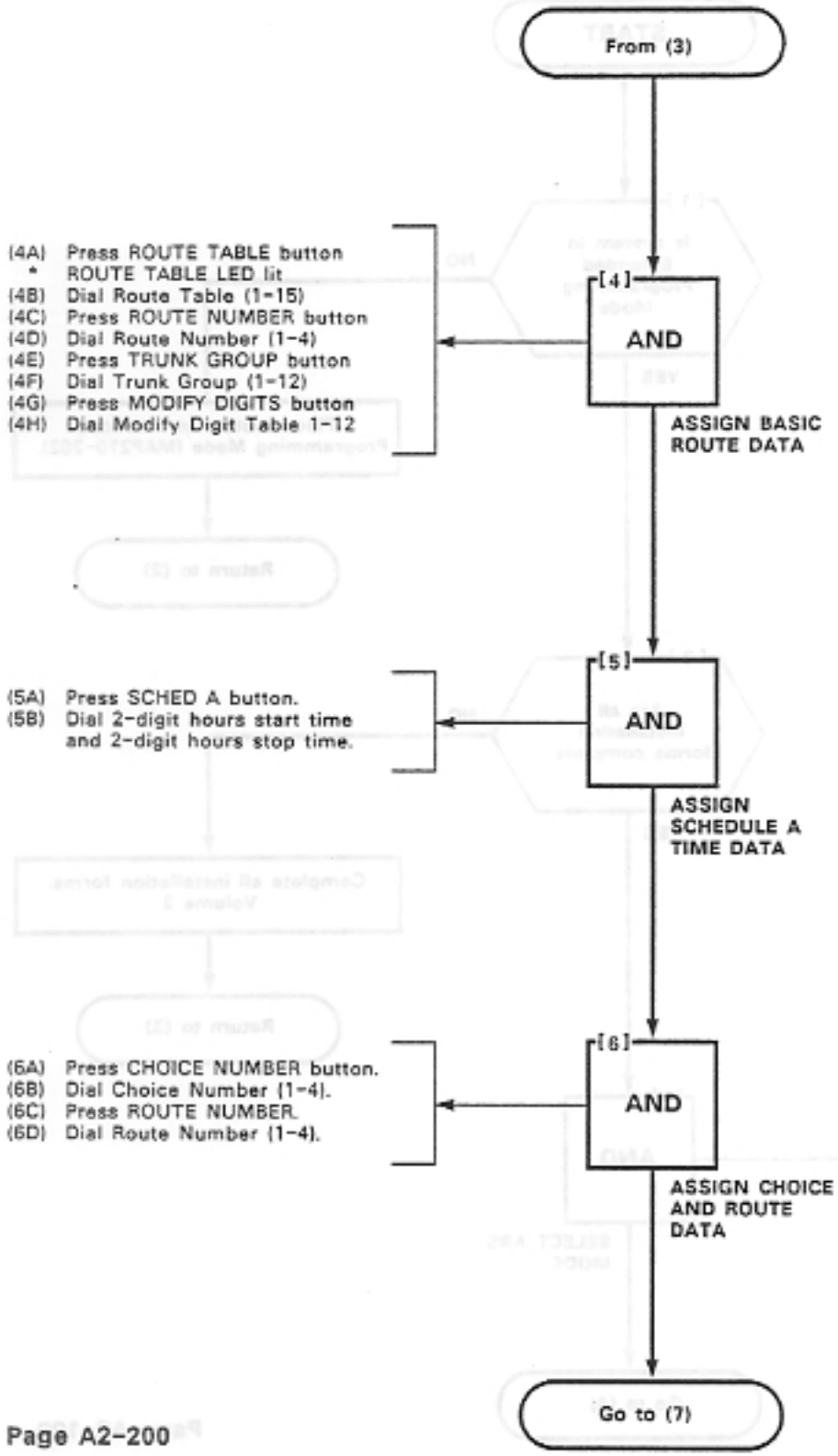

ROUTE TABLE PROGRAMMING
MAP210-258
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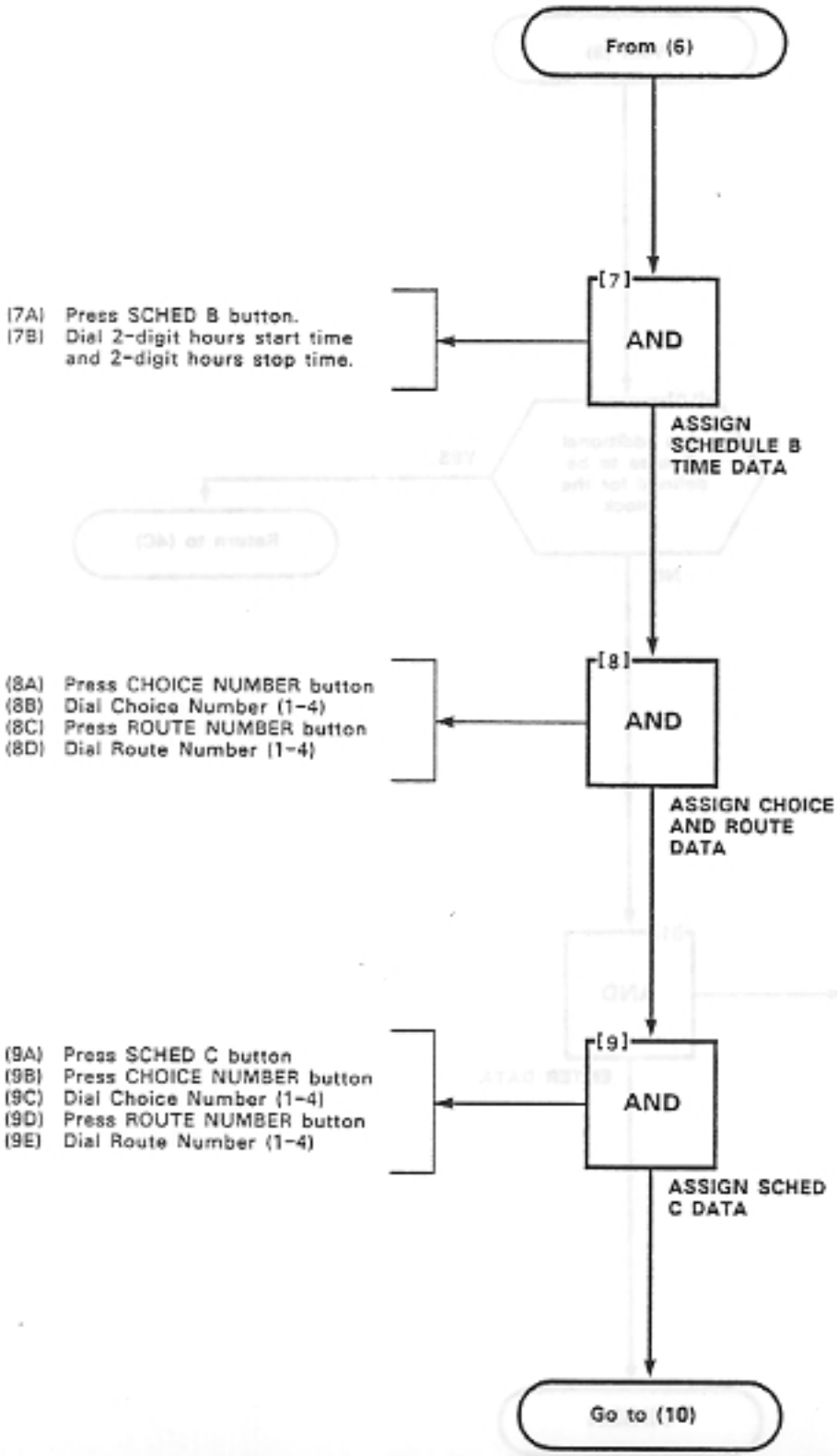

ROUTE TABLE PROGRAMMING
MAP210- 258
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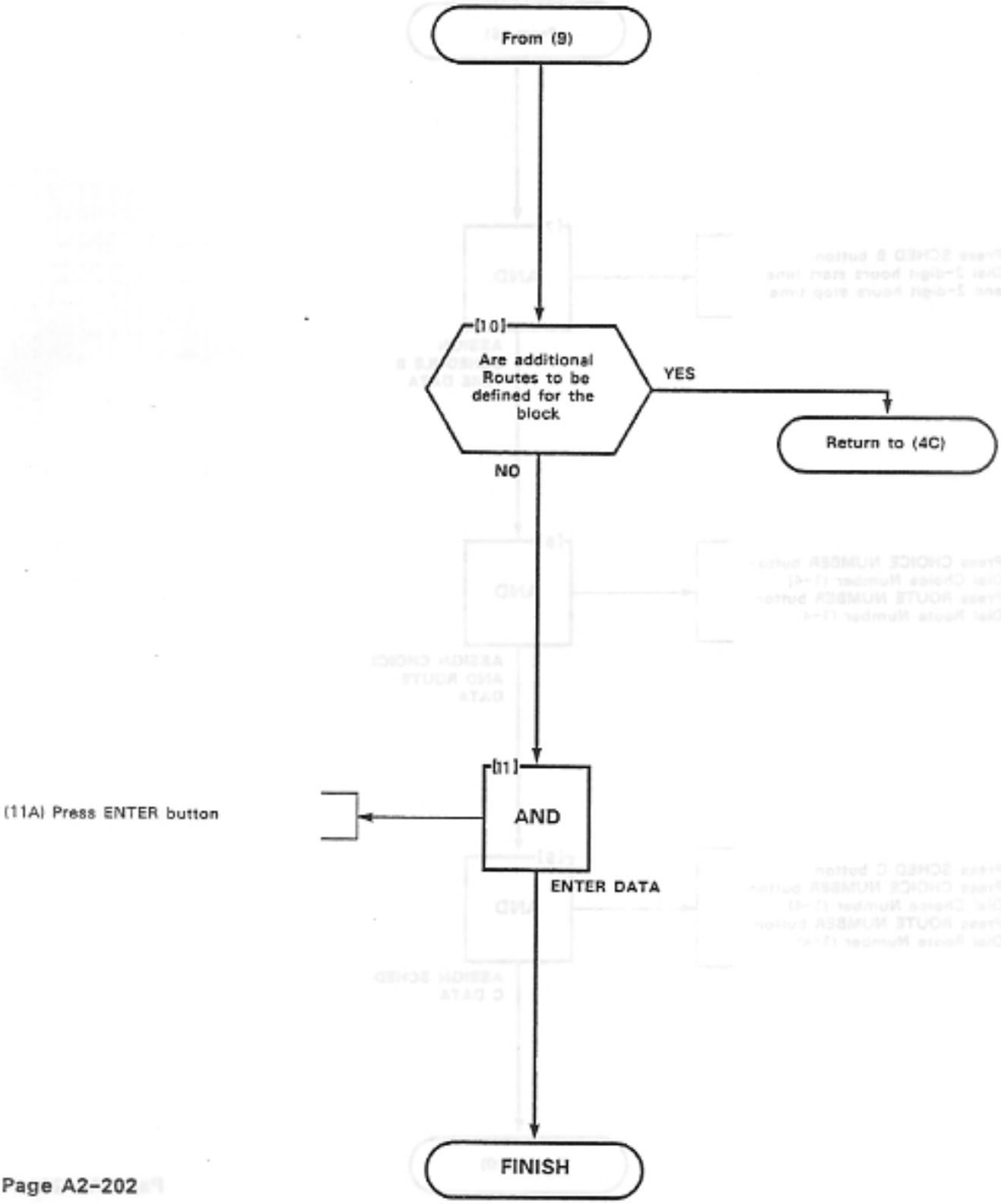


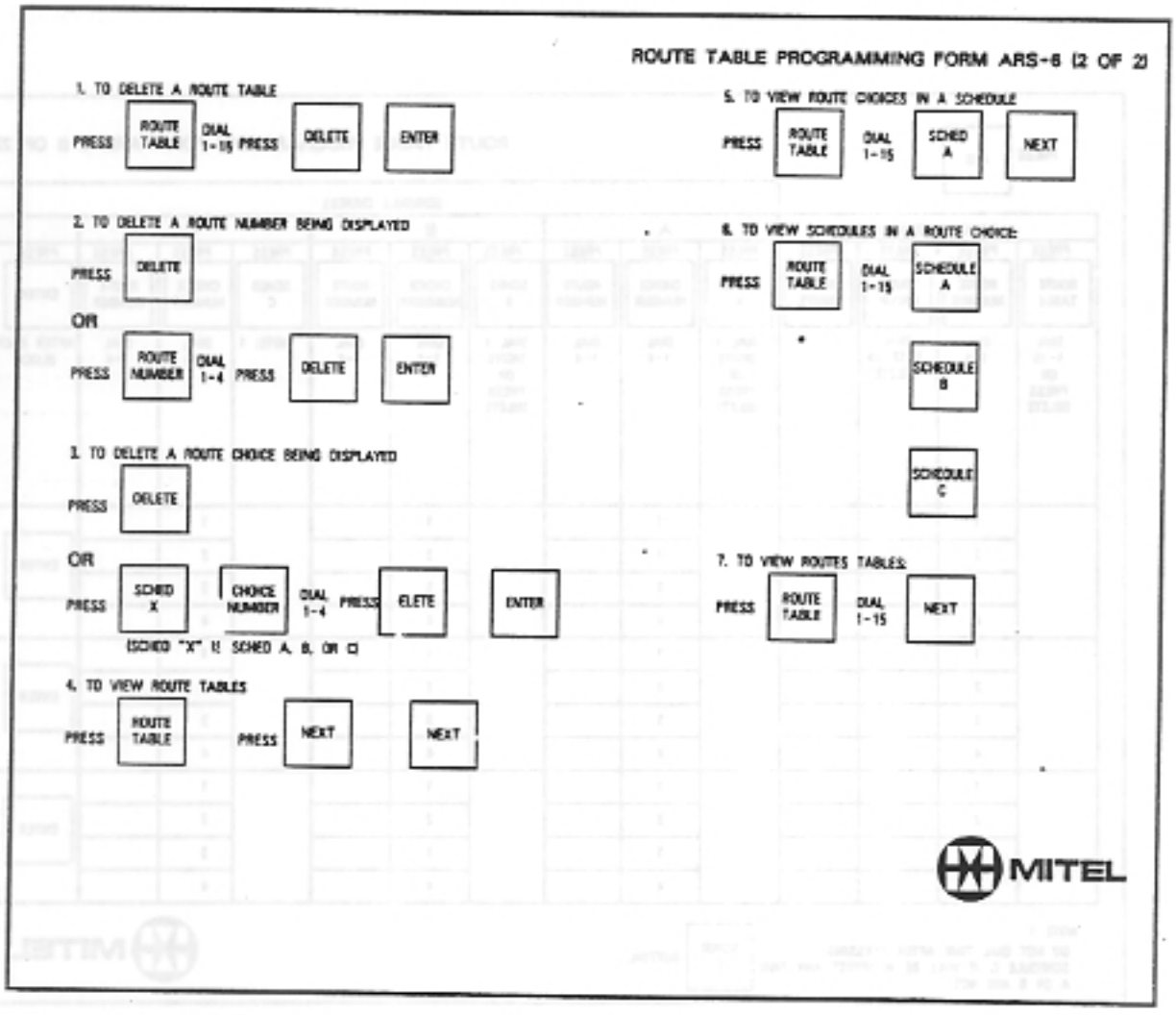
PRESS **ARS**

ROUTE TABLE PROGRAMMING FORM ARS-6 (1 OF 2)

BASIC SCHEDULE DATA				SCHEDULE CHOICES A			SCHEDULE CHOICES B			SCHEDULE CHOICES C			
PRESS ROUTE TABLE	PRESS ROUTE NUMBER	PRESS TRUNK GROUP	PRESS MODIFY DIGITS	PRESS SCHED A	PRESS CHOICE NUMBER	PRESS ROUTE NUMBER	PRESS SCHED B	PRESS CHOICE NUMBERS	PRESS ROUTE NUMBER	PRESS SCHED C	PRESS CHOICE NUMBER	PRESS ROUTE NUMBER	PRESS ENTER
DIAL 1-15 OR PRESS DELETE	DIAL 1-4	DIAL 1-12 OR DELETE		DIAL 4 DIGITS OR PRESS DELETE	DIAL 1-4	DIAL 1-4	DIAL 4 DIGITS OR PRESS DELETE	DIAL 1-4	DIAL 1-4	NOTE 1	DIAL 1-4	DIAL 1-4	AFTER EACH BLOCK
	1				1			1			1		
	2				2			2			2		ENTER
	3				3			3			3		
	4				4			4			4		
	1				1			1			1		
	2				2			2			2		ENTER
	3				3			3			3		
	4				4			4			4		
	1				1			1			1		
	2				2			2			2		ENTER
	3				3			3			3		
	4				4			4			4		

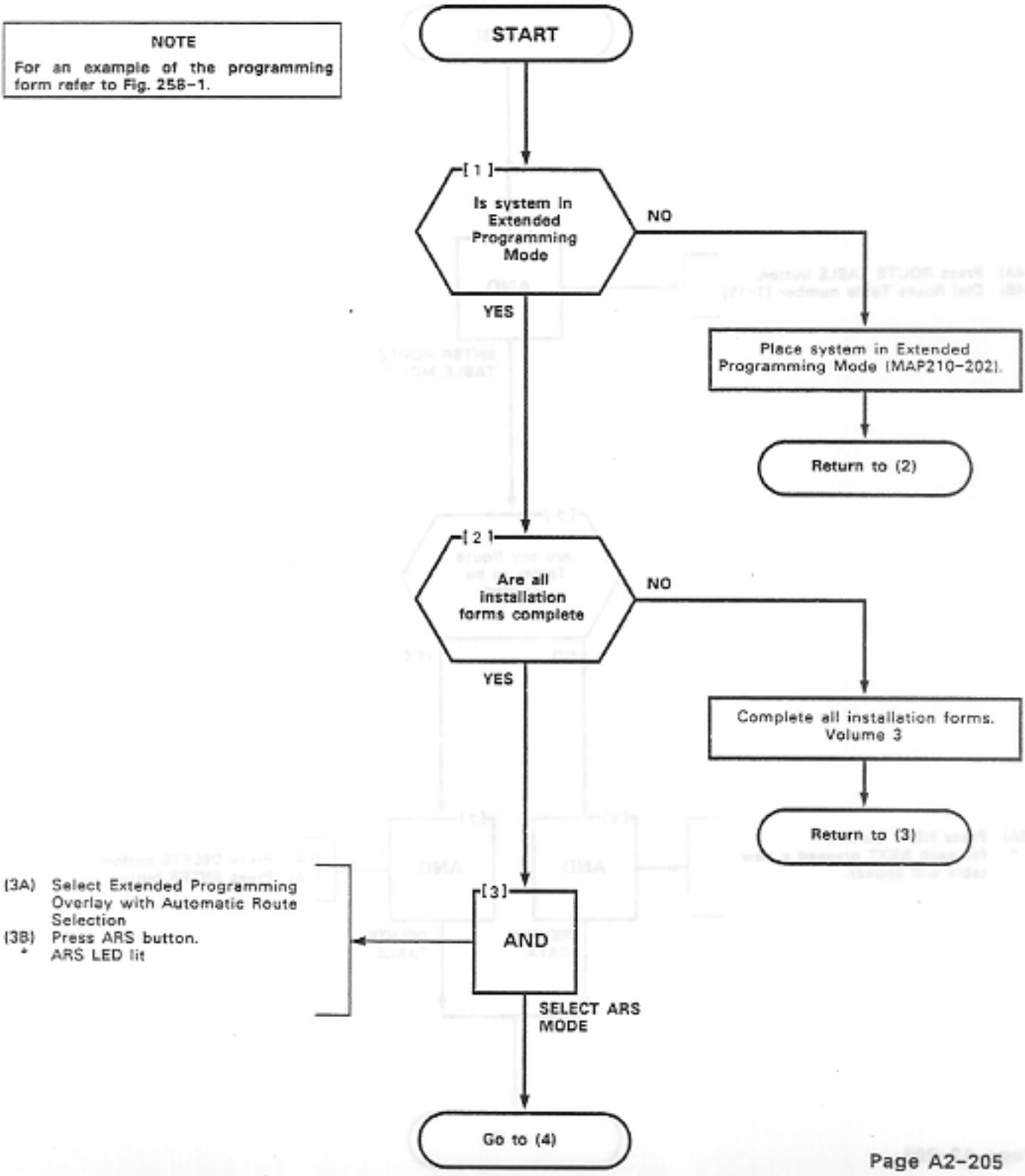
NOTE 1
DO NOT DIAL TIME AFTER PRESSING SCHEDULE C, IT WILL BE IN EFFECT ANY TIME A OR B ARE NOT. **SCHED C** BUTTON.

MITEL


ROUTE TABLE PROGRAMMING FORM ARS-6 (2 OF 2)
1. TO DELETE A ROUTE TABLE
PRESS
ROUTE TABLE
DIAL 1-15
PRESS
DELETE
ENTER
2. TO DELETE A ROUTE NUMBER BEING DISPLAYED
PRESS
DELETE
OR
PRESS
ROUTE NUMBER
DIAL 1-4
PRESS
DELETE
ENTER
3. TO DELETE A ROUTE CHOICE BEING DISPLAYED
PRESS
DELETE
OR
PRESS
SCHED X
CHOICE NUMBER
DIAL 1-4
PRESS
ELETE
ENTER
(SCHED "X" IS SCHED A, B, OR C)
4. TO VIEW ROUTE TABLES
PRESS
ROUTE TABLE
PRESS
NEXT
NEXT
5. TO VIEW ROUTE CHOICES IN A SCHEDULE
PRESS
ROUTE TABLE
DIAL 1-15
SCHED A
NEXT
6. TO VIEW SCHEDULES IN A ROUTE CHOICE:
PRESS
ROUTE TABLE
DIAL 1-15
SCHEDULE A
SCHEDULE B
SCHEDULE C
7. TO VIEW ROUTES TABLES:
PRESS
ROUTE TABLE
DIAL 1-15
NEXT
MITEL

TO REVIEW OR DELETE A ROUTE TABLE
MAP210-259
Issue 1, September 1983
Sheet 1 of 3

NOTE
For an example of the programming form refer to Fig. 258-1.



TO REVIEW OR DELETE A ROUTE TABLE
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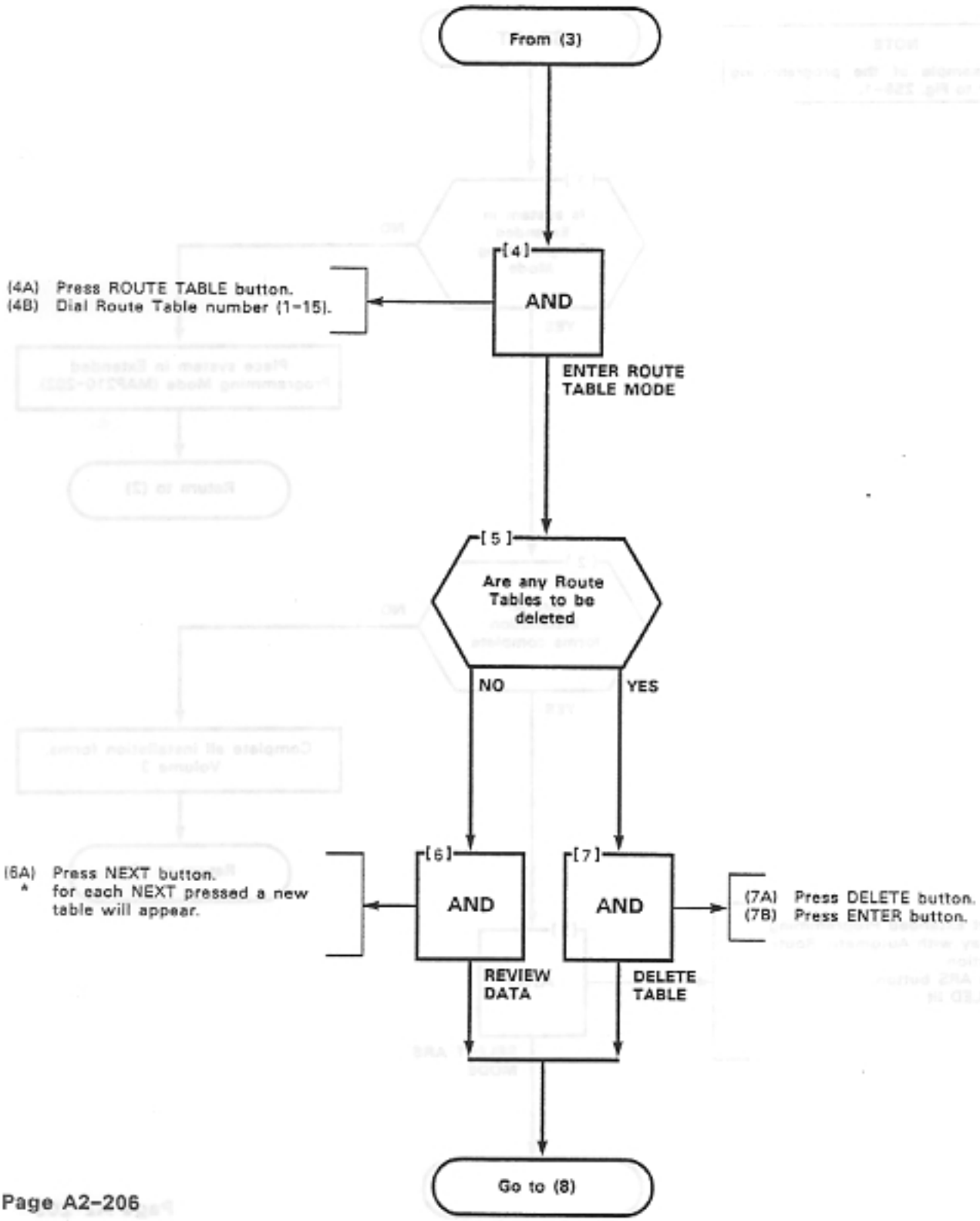

TO REVIEW OR DELETE A ROUTE TABLE
MAP210-259
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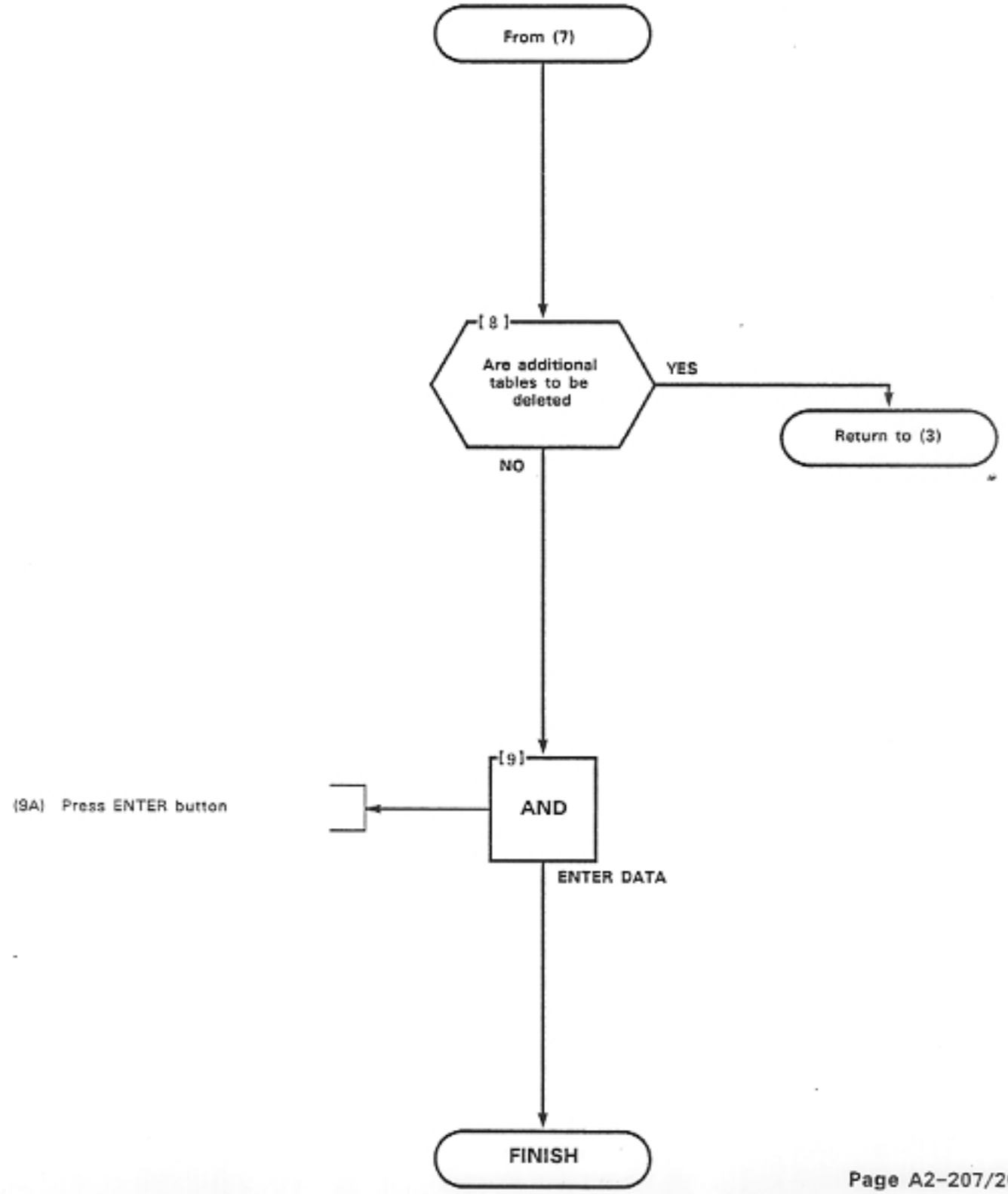

REVIEW OR DELETE ROUTES
MAP210-260
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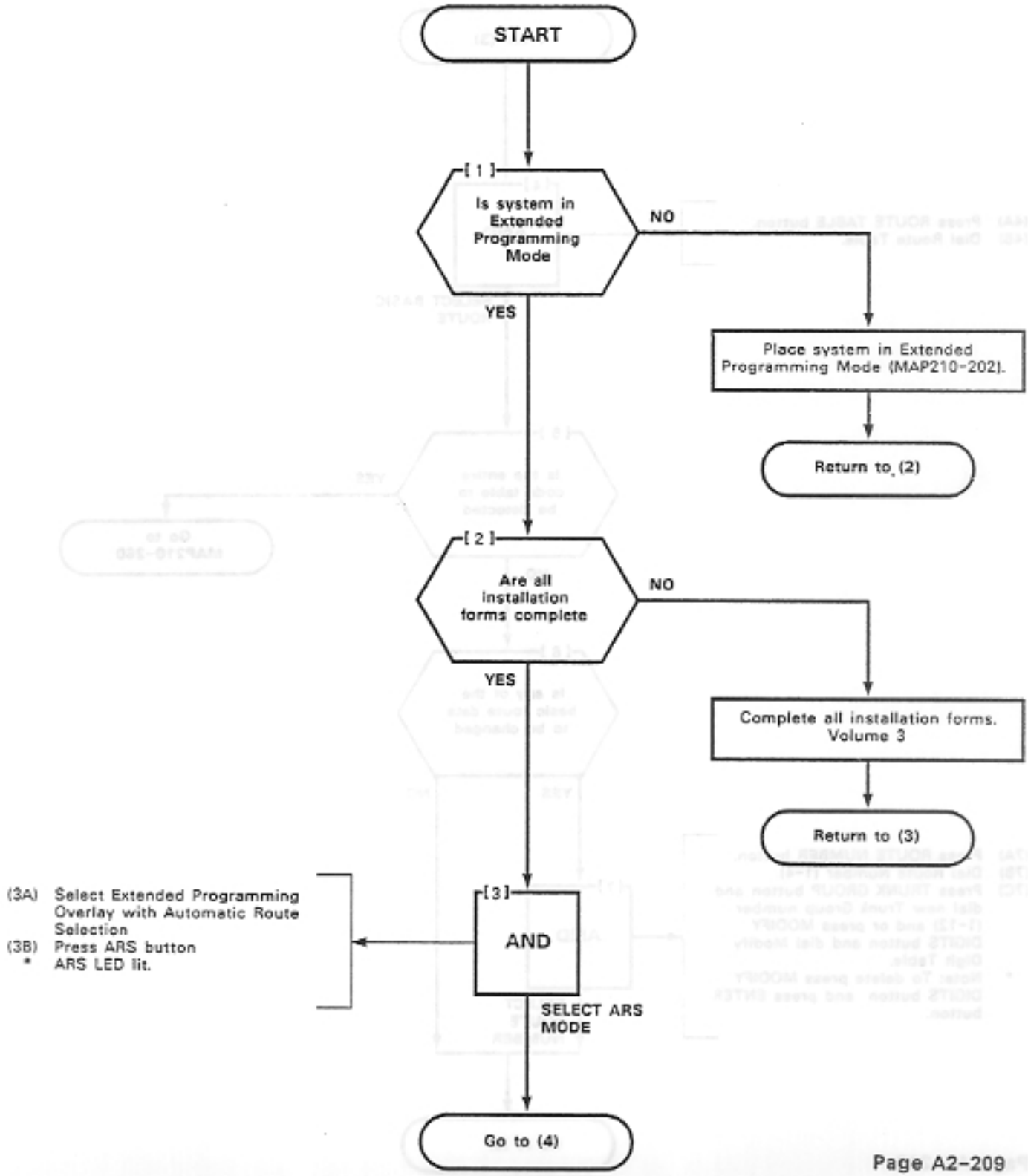

REVIEW OR DELETE ROUTES
MAP210- 260
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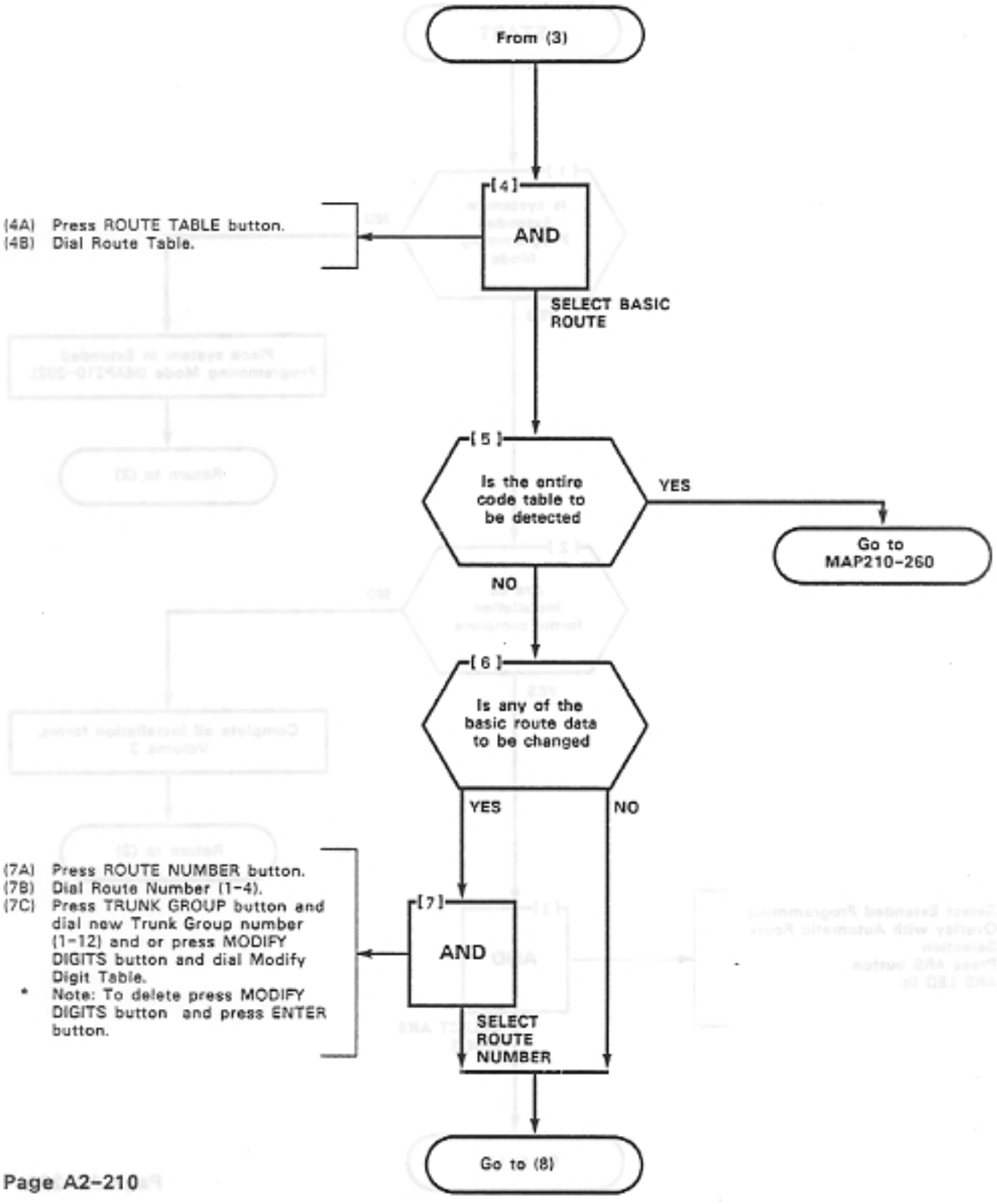

REVIEW OR DELETE ROUTES
MAP210-260
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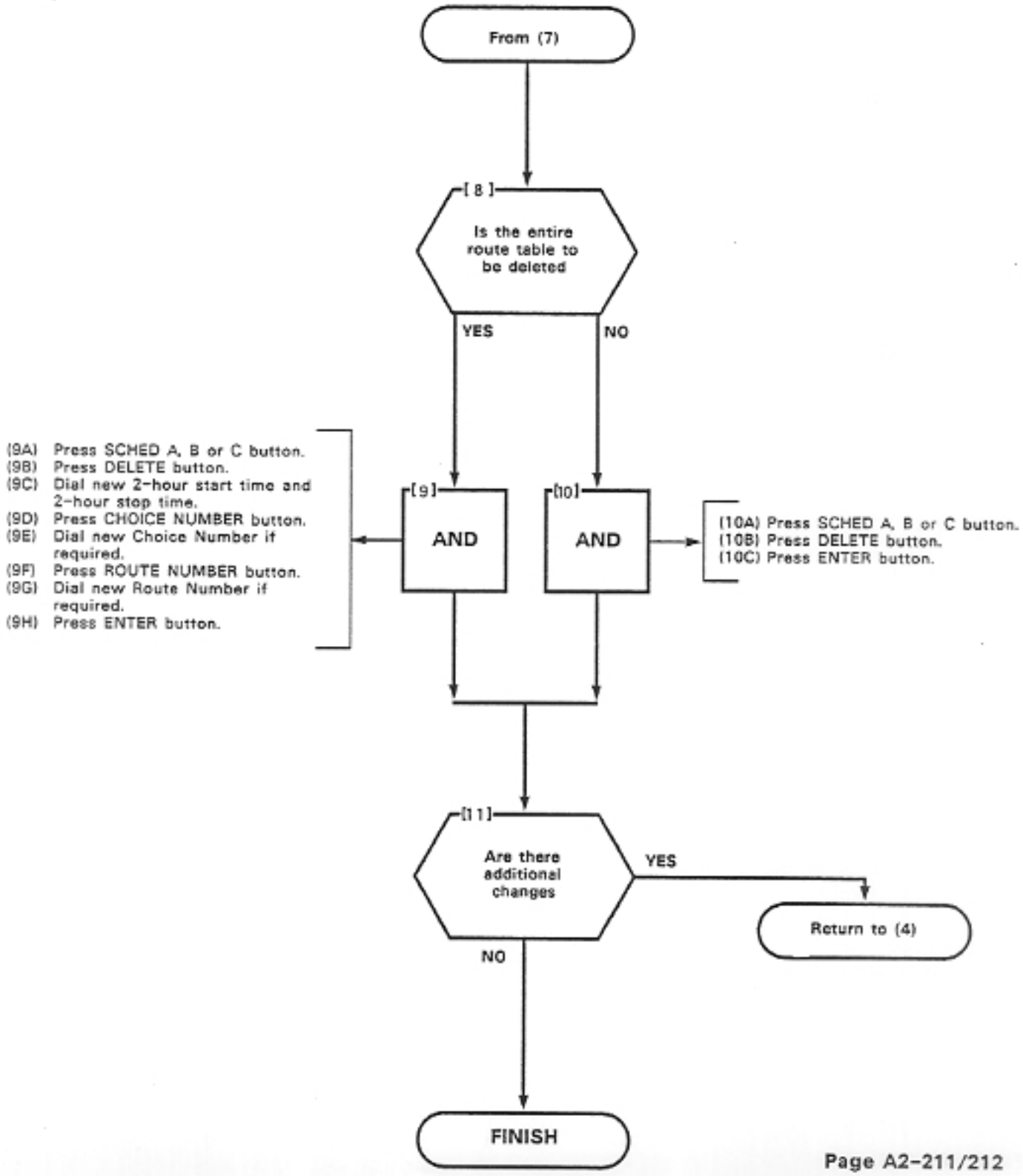
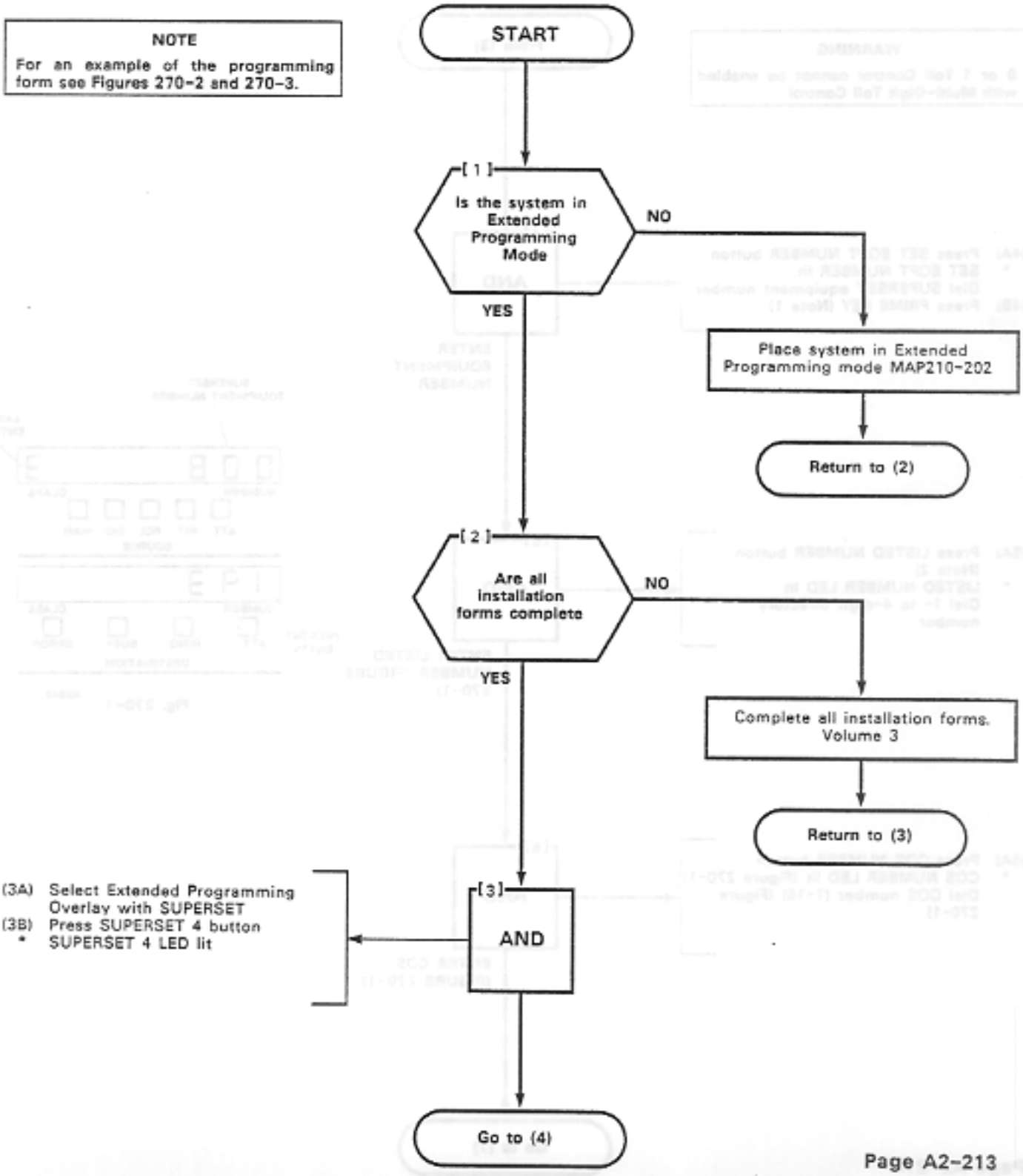


AND
AND

PROGRAM A PRIME KEY
MAP210-270
Issue 1, September 1983
Sheet 1 of 10

NOTE
For an example of the programming form see Figures 270-2 and 270-3.



PROGRAM A PRIME KEY
MAP210- 270
Issue 1, September 1983
Sheet 2 of 10

WARNING
0 or 1 Toll Control cannot be enabled with Multi-Digit Toll Control

From (3)

[4] AND

(4A) Press SET EQPT NUMBER button
* SET EQPT NUMBER lit
Dial SUPERSET equipment number
(4B) Press PRIME KEY (Note 1)

ENTER EQUIPMENT NUMBER

[5] AND

(5A) Press LISTED NUMBER button (Note 2)
* LISTED NUMBER LED lit
Dial 1- to 4-digit directory number

ENTER LISTED NUMBER (FIGURE 270-1)

[6] AND

(6A) Press COS NUMBER button
* COS NUMBER LED lit (Figure 270-1)
Dial COS number (1-16) (Figure 270-1)

ENTER COS (FIGURE 270-1)

Go to (7)

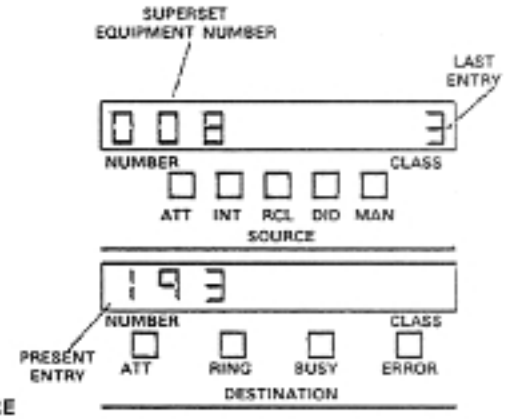


Fig. 270-1

PROGRAM A PRIME KEY
MAP210-270
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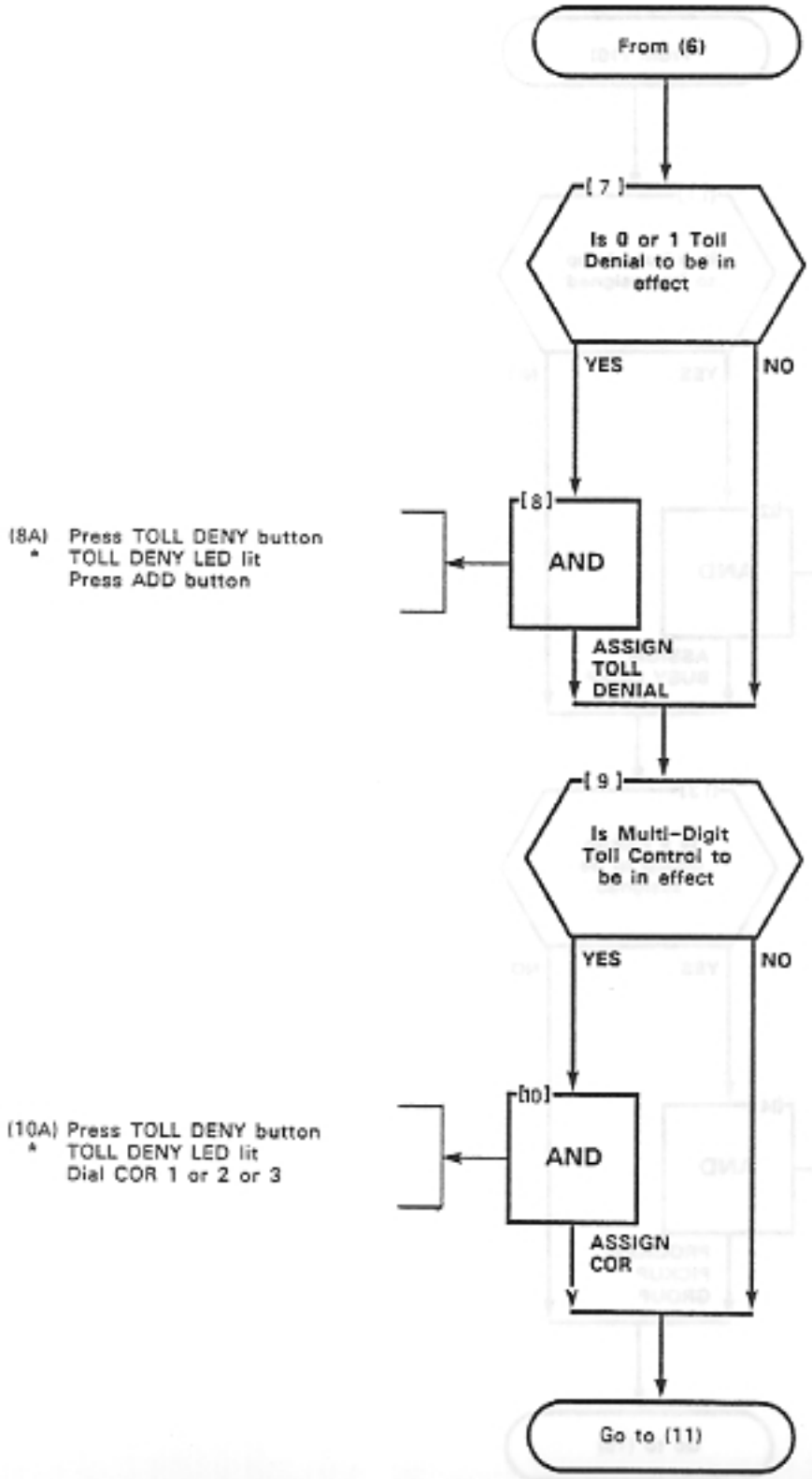

PROGRAM A PRIME KEY
MAP210- 270
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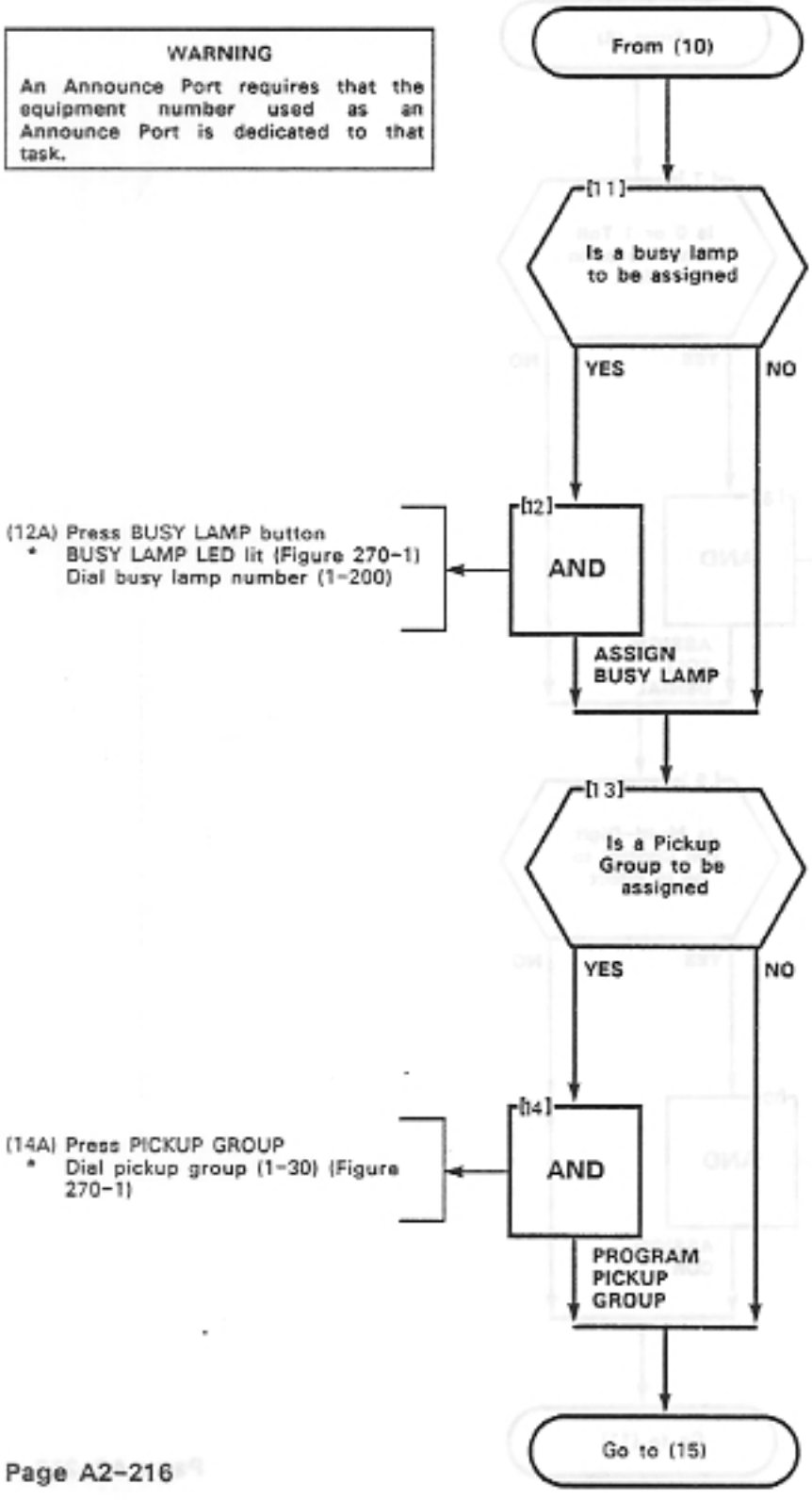
WARNING

An Announce Port requires that the equipment number used as an Announce Port is dedicated to that task.



PROGRAM A PRIME KEY
MAP210-270
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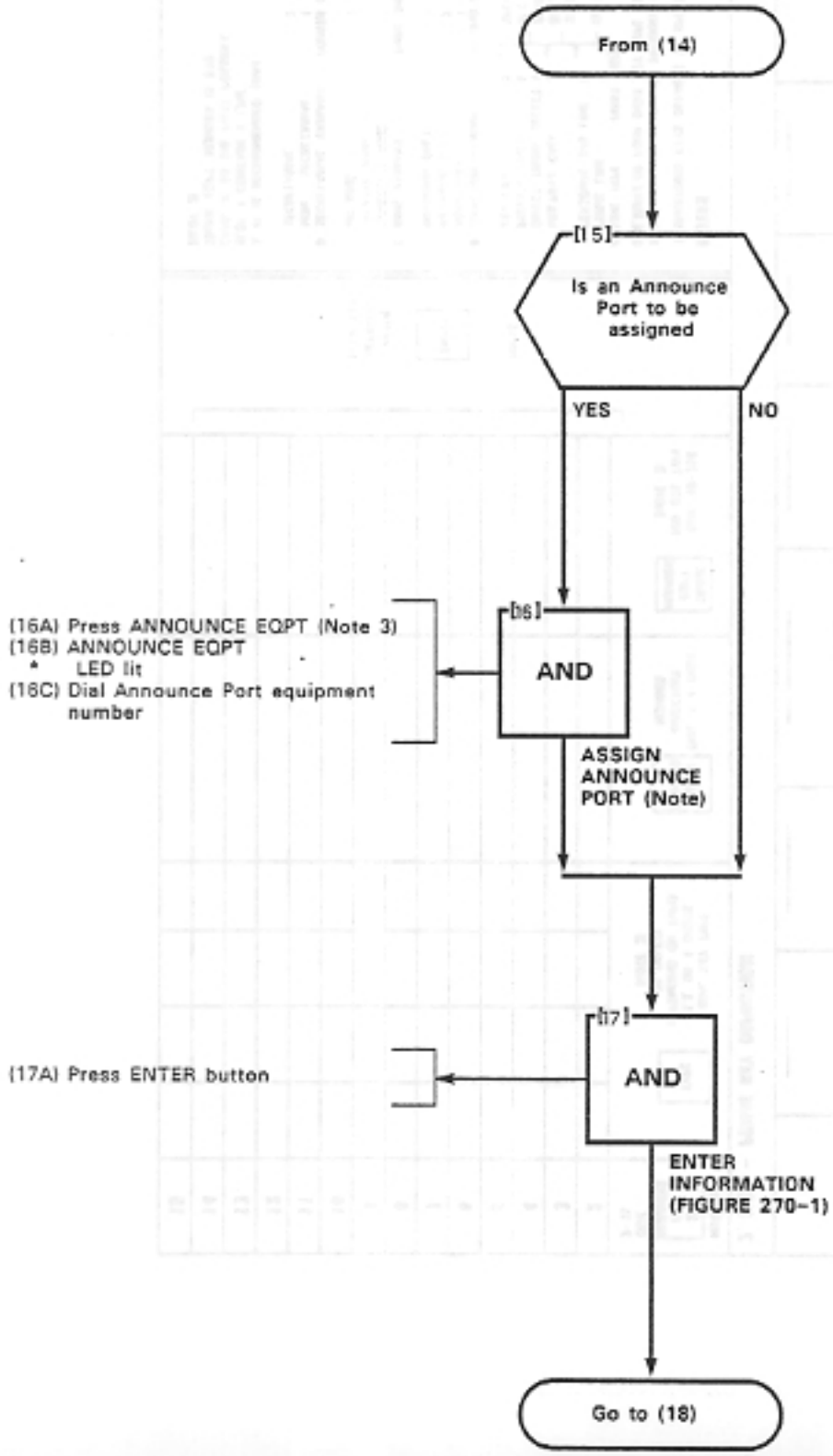

SUPERSET 4 PROGRAMMING S4 - 2

(SEE FORM S4-1 FOR PROGRAMMING PROCEDURES)

MITEL

SET EQPT NUMBER — DIAL EQPT NUMBER OF SUPERSET 5-112 OR 161-256 _____

1. PRIME KEY DEFINITION

PRIME KEY	LISTED NUMBER	COS NUMBER	TOLL DENY	BUSY LAMP	PICKUP GROUP	ANNOUNCE EQPT #	
	DIAL 1-4 DIGIT DIRECTORY NUMBER	DIAL 1-16	PRESS ADD OR DELETE OR COR 1,2,3	DIAL 1-200 OR DELETE	DIAL 1-30 OR DELETE	DIAL 2-256 OR DELETE	ENTER
	_____	_____	_____	_____	_____	_____	

2. NON - PRIME KEY DEFINITION

NOTE 1 SET KEY NUMBER DIAL 2-15	TYPE — DIAL KEY TYPE (1, 3, OR 4 DIGITS DEPENDING ON TYPE) OR DELETE (NOTE 2)	LISTED NUMBER — DIAL 1-4 DIGIT DIRECTORY NUMBER	TRUNK EQPT NUMBER — DIAL 10-256 FOR DTS TYPE (NOTE 3)	
2				PRESS ENTER AFTER DEFINING EACH KEY
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				

NOTES

1. UNDEFINED KEYS DEFAULT TO SPEED CALL
2. USE LISTINGS BELOW TO PRODUCE THE ONE,THREE,OR FOUR DIGIT KEY TYPE CODES

A LINE TYPE — FIRST DIGIT

PRIME LINE	1	NO VARIANTS
PERSONAL CUS LINE	6	NO VARIANTS
MULTIPLE CALL	3	SPECIFY VARIANTS (B,C,D, BELOW)
DIRECT TRUNK SELECT	4	SPECIFY VARIANTS (B,C BELOW)
PRIVATE LINE	5	SPECIFY B,C + 1
KEY LINE	2	SPECIFY B,C + 1

B DIRECTION VARIANT — SECOND DIGIT

BOTH WAY	1
INCOMING ONLY	2
OUTGOING ONLY	3

C RING VARIANT — THIRD DIGIT

IMMEDIATE RING	1
DELAYED RING	2
NO RING	3

D SECRETARIAL VARIANT — FOURTH DIGIT

NON - SECRETARIAL	1
SECRETARIAL	2

3. IT IS RECOMMENDED THAT SLOT 1 CONTAIN A LINE (CARD. IF SO THE FIRST POSSIBLE TRUNK EQPT. NUMBER IS 010 (SLOT 2)

SUPERSET 4 PROGRAMMING S4 - 2

(SEE FORM S4-1 FOR PROGRAMMING PROCEDURES)

MITEL

SET EQPT NUMBER — DIAL EQPT NUMBER OF SUPERSET 9-112 OR 161-256 _____

1. PRIME KEY DEFINITION

PRIME KEY	LISTED NUMBER	COS NUMBER	TOLL DENY	BUSY LAMP	PICKUP GROUP	ANNOUNCE EQPT #	
	DIAL 1-4 DIGIT DIRECTORY NUMBER	DIAL 1-16	PRESS ADD OR DELETE OR COR 1,2,3	DIAL 1-200 OR DELETE	DIAL 1-30 OR DELETE	DIAL 2-256 OR DELETE	ENTER
	_____	_____	_____	_____	_____	_____	

2. NON - PRIME KEY DEFINITION

NOTE 1 SET KEY NUMBER DIAL 2-15	TYPE — DIAL KEY TYPE (1,3, OR 4 DIGITS DEPENDING ON TYPE) OR DELETE (NOTE 2)	LISTED NUMBER — DIAL 1-4 DIGIT DIRECTORY NUMBER	TRUNK EQPT NUMBER — DIAL 10-256 FOR DTS TYPE (NOTE 3)
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			

PRESS ENTER AFTER DEFINING EACH KEY

NOTES

1. UNDEFINED KEYS DEFAULT TO SPEED CALL
2. USE LISTINGS BELOW TO PRODUCE THE ONE,THREE,OR FOUR DIGIT KEY TYPE CODES

A. LINE TYPE — FIRST DIGIT
- PRIME LINE 1 — NO VARIANTS
- PERSONAL O/G LINE 6 — SPECIFY VARIANTS (B,C,D, BELOW)
- MULTIPLE CALL 3 — SPECIFY VARIANTS (B,C BELOW)
- DIRECT TRUNK SELECT 4 — SPECIFY VARIANTS (B,C BELOW)
- PRIVATE LINE 5 — SPECIFY B,C + 1
- KEY LINE 2

B. DIRECTION VARIANT — SECOND DIGIT
- BOTH WAY 1
- INCOMING ONLY 2
- OUTGOING ONLY 3

C. RING VARIANT — THIRD DIGIT
- IMMEDIATE RING 1
- DELAYED RING 2
- NO RING 3

D. SECRETARIAL VARIANT — FOURTH DIGIT
- NON - SECRETARIAL 1
- SECRETARIAL 2

3. IT IS RECOMMENDED THAT SLOT 1 CONTAIN A LINE CARD. IF SO THE FIRST POSSIBLE TRUNK EQPT. NUMBER IS 010 (SLOT 2)

SUPERSET 4 PROGRAMMING S4-1

SHEET 1 OF 2

MITEL

1. TO ENTER SUPERSET 4 PROGRAMMING MODE

PLACE SYSTEM IN EXTENDED PROGRAMMING MODE

LAMP TEST LED FLASHES

[SUPER SET]

SYSTEM IS NOW READY FOR SUPERSET 3 PROGRAMMING

2. TO DELETE THE PRIME LINE (ALL APPEARANCES MUST BE DELETED BEFORE PRIME LINE CAN BE DELETED)

[SET EQPT NUMBER]

DIAL EQPT NUMBER OF SUPERSET

[PRIME KEY]

[DELETE]

[ENTER]

THE EQUIPMENT NUMBER DIALLED IS NO LONGER IDENTIFIED AS A SUPERSET 3 PRIME LINE

3. TO ADD, CHANGE OR DELETE PRIME LINE PARAMETERS.

[SET EQPT NUMBER]

DIAL EQPT NUMBER OF SUPERSET

[PRIME KEY]

[*]

* KEY IDENTIFYING PARAMETER
I.E. ONE OF
LISTED NUMBER
COS NUMBER
TOLL DENY
BUSY LAMP NUMBER
PICKUP GROUP
ANNOUNCE EQPT NUMBER

3A TO ADD OR CHANGE: DIAL NUMBER AS SHOWN ON FORM S4-2

3B TO DELETE [DELETE]

[ENTER]

THE SELECTED PARAMETER HAS BEEN ADDED CHANGED OR DELETED AS REQUIRED

4. TO DELETE A NON-PRIME LINE

[SET EQPT NUMBER]

DIAL EQPT NUMBER OF SUPERSET

[SET KEY NUMBER]

DIAL KEY# 12-15

[DELETE]

[ENTER]

THE SELECTED NON-PRIME LINE IS NOW DELETED

SUPERSET 4 PROGRAMMING S4-1

SHEET 2 OF 2

MITEL

5. TO ADD, CHANGE OR DELETE NON-PRIME LINE DATA

6. TO REVIEW PREVIOUSLY ENTERED DATA

NOTE 1:- DIALING AN INVALID LISTED NUMBER OR TRUNK EQPT NUMBER WILL RESULT IN AN ERROR CODE DISPLAY

NOTE 2:- IF A LISTED NUMBER IS ASSIGNED TO THE PRIME KEY OF THE SUPERSET 4 THE PRIME KEY DATA IS ALWAYS THE FIRST TO BE DISPLAYED

NOTE 3:- NON-PRIME LINE ASSIGNMENT OF A LISTED NUMBER OR TRUNK EQPT NUMBER ARE SHOWN IN NO PRESCRIBED ORDER. WHEN ALL DATA HAS BEEN DISPLAYED THE 'NEXT' KEY IS INEFFECTIVE

7. TO TRANSFER SUPERSET 3 DATA TO ANOTHER EQUIPMENT NUMBER

NOTE 1:- DIRECTORY NUMBER IS DISPLAYED AT RIGHT OF SOURCE FOR VERIFICATION. EXISTING EQPT NUMBER IS DISPLAYED AT LEFT OF SOURCE.

NOTE 2:- NEW EQPT NUMBER IS DISPLAYED AT LEFT OF DESTINATION DISPLAY

NOTE 3:- EXISTING EQPT NUMBER IS REPLACED AT LEFT OF SOURCE DISPLAY BY NEW EQPT NUMBER

PROGRAM A PRIME KEY
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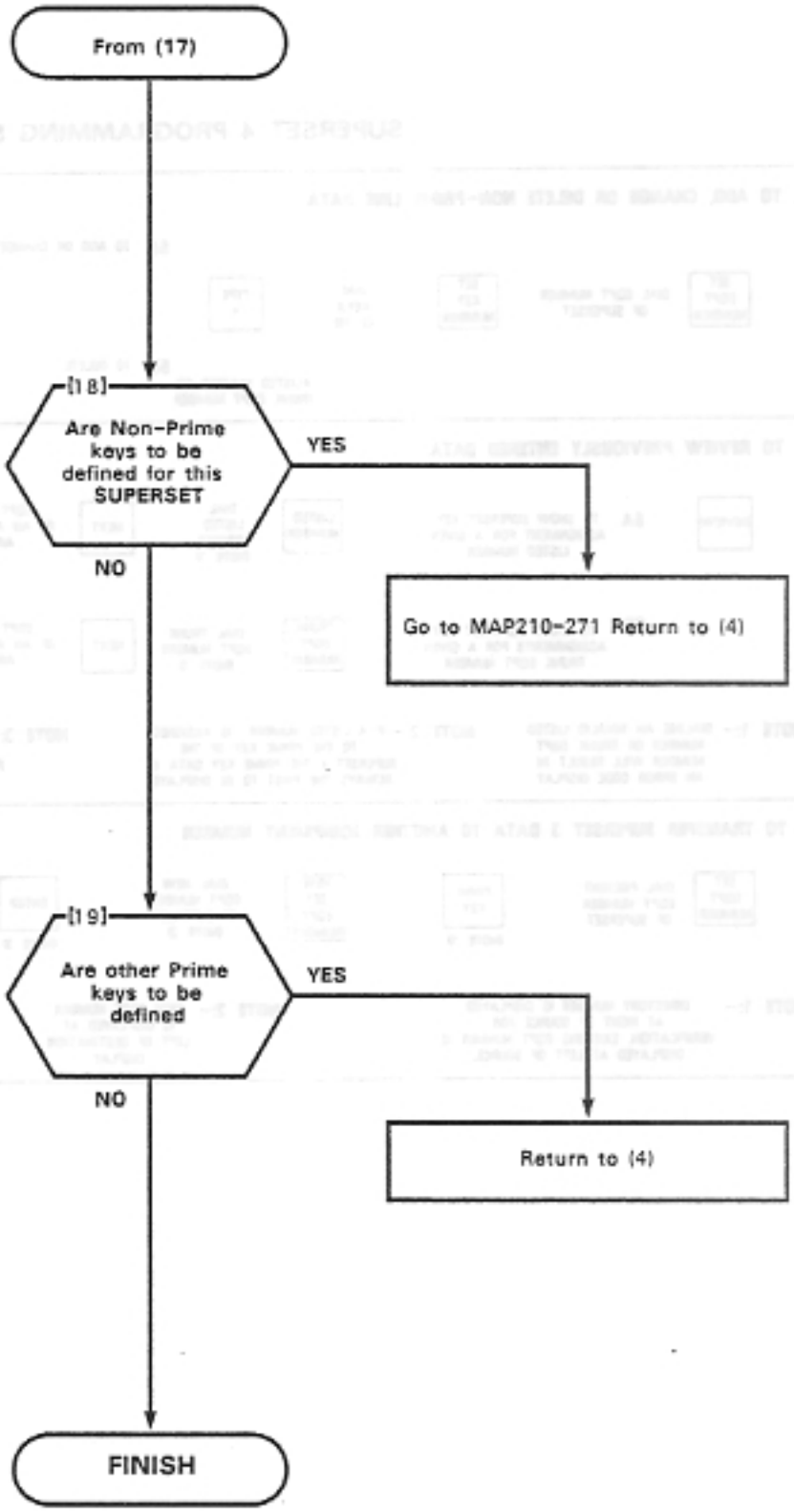

PROGRAM A NON-PRIME KEY
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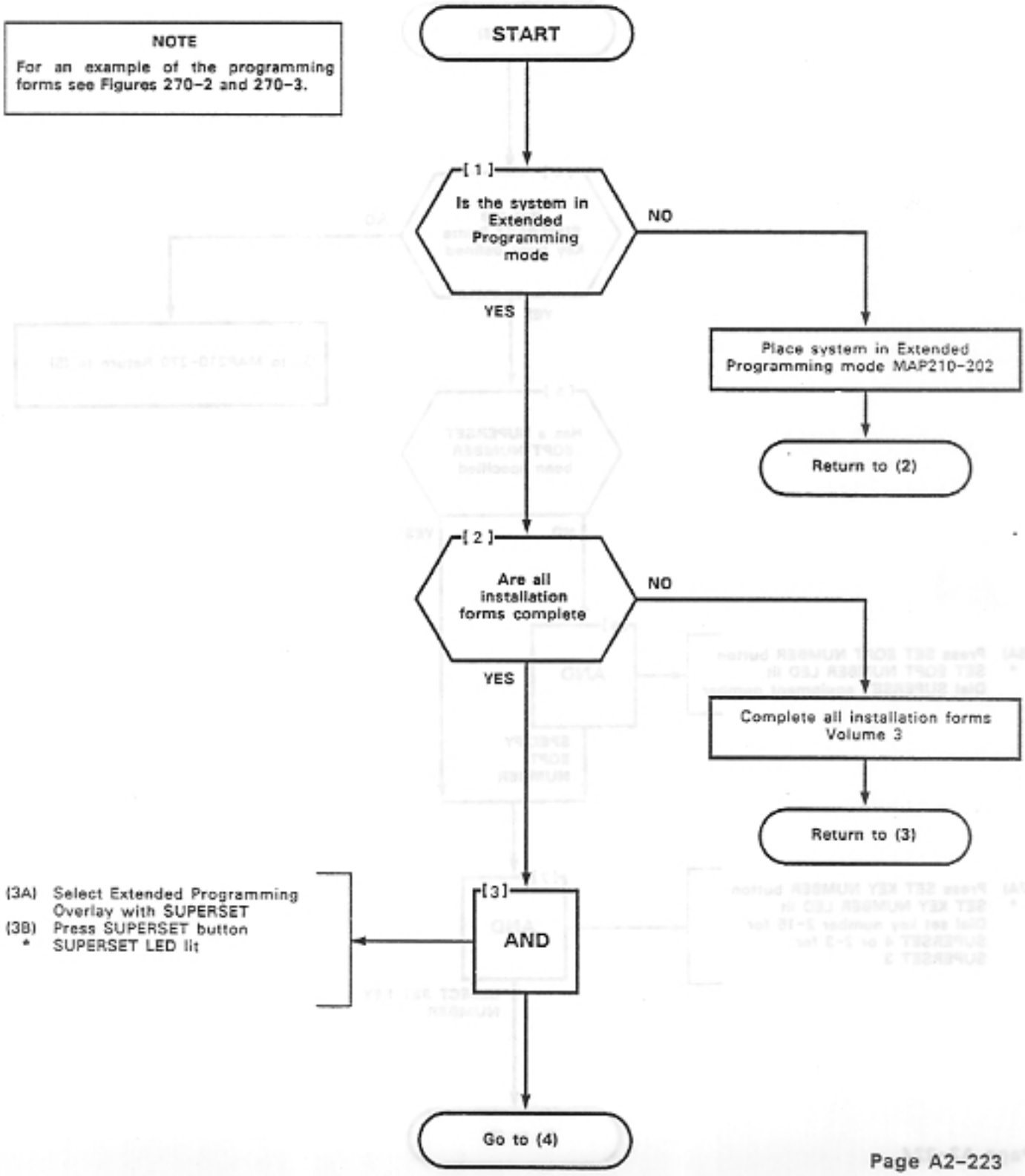
NOTE
For an example of the programming forms see Figures 270-2 and 270-3.



PROGRAM A NON-PRIME KEY
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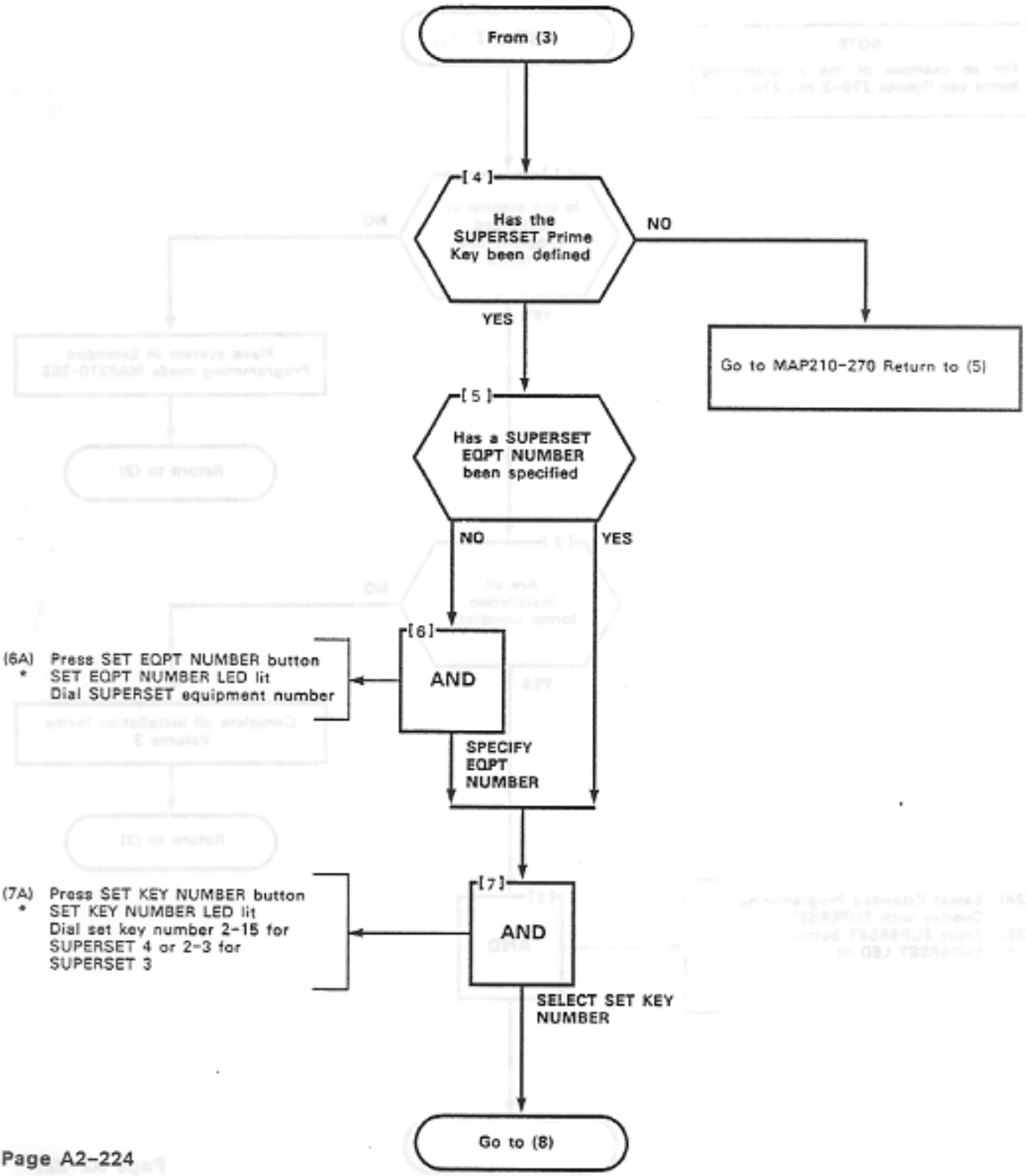

PROGRAM A NON-PRIME KEY
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From (7)

[8]

AND

(8A) Press TYPE button
* TYPE LED lit
Dial type (Note 1) (Figure 271-1) (Table 271-1) (Note 2)

PROGRAM TYPE (Note 1) (Figure 271-1)

[9]

Was the key programmed as a Personal Outgoing Line

YES

Go to (14)

NO

[10]

Was the key programmed as a key or Multiple Call Line

YES

NO

[11]

AND

(11A) Press LISTED NUMBER button
* LISTED NUMBER LED lit
Dial 1- to 4-digit directory number (Figure 271-1)
(11B) Press ENTER button

PROGRAM LISTED NUMBER

Go to (12)

NOTE 1

When programming Multiple Call Line appearances, Type Options B, C and D must be programmed and a listed number specified. When programming Direct Trunk Select and Private Line types, only Type Options B and C must be programmed and a Trunk Eqpt. Number specified. When programming a Personal Outgoing Line there are no variants. When programming key line appearances, B and C and the digit 1 must be programmed.

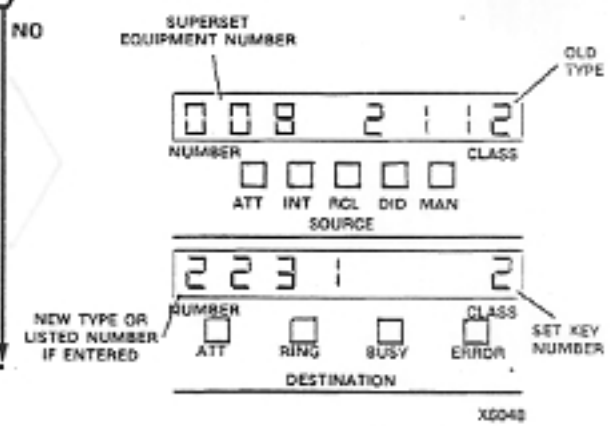

Fig. 271-1 Typical Type

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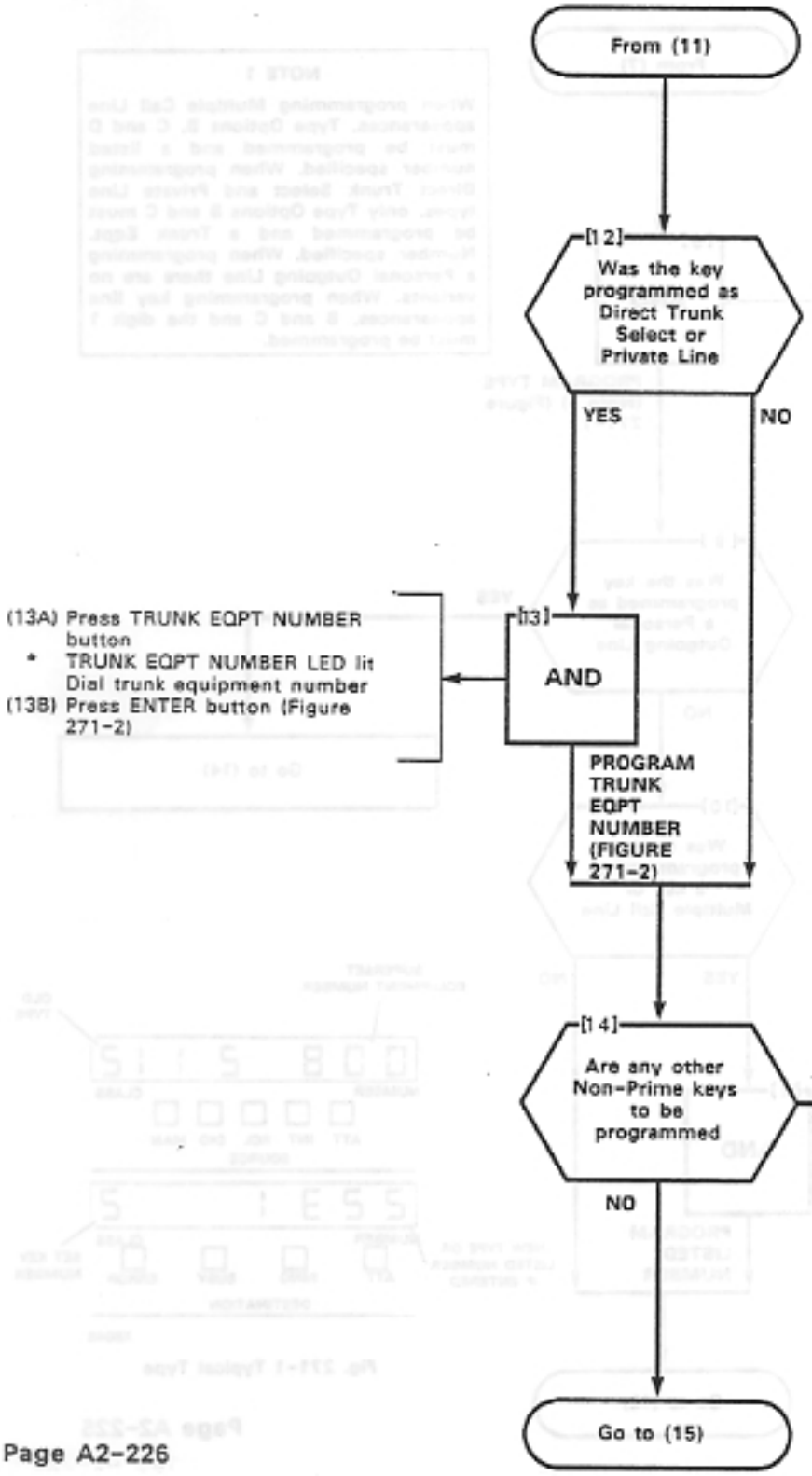

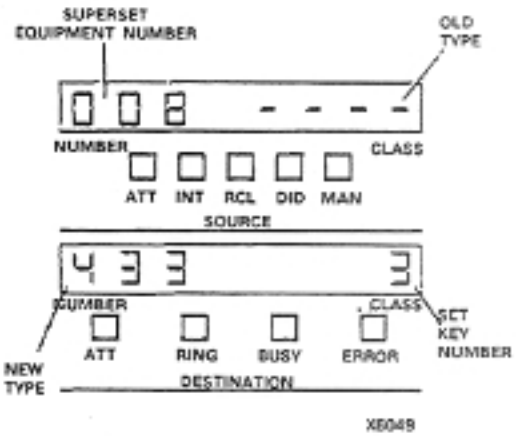

Fig. 271-2 Typical Entry

PROGRAM A NON-PRIME KEY
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NOTE 2

(a) KEY LINE: Key Lines are "appearances" of a listed number in the system. The listed number may be that of a prime line or may only exist on the particular key. When one set seizes the line, all other appearances of that listed number are busy.

(b) MULTIPLE CALL: MULTIPLE CALL keys are also appearances of a listed number in the system. They are different from key line appearances in that while one appearance of the listed number may be busy, other appearances of that listed number will be idle.

(c) DIRECT TRUNK SELECT: The DIRECT TRUNK SELECT key is used to represent specified trunks. Each DTS key is assigned a trunk equipment number. DIRECT TRUNK SELECT keys may share the same trunk equipment number. When a shared DTS trunk is in use by one user in the system, all other DTS keys assigned to that trunk are busy.

(d) PRIVATE LINE: A Private Line is similar to a DTS line except that a Transfer/Conference cannot be performed.

(e) PERSONAL OUTGOING LINE: A Personal Outgoing Line is similar to a Multiple Call appearance of a prime key on a SUPERSET. It is considered to be an appearance of the set's prime line. Having this key guarantees that there is always at least one free line on the set (for an outgoing call) should all other lines be busy.

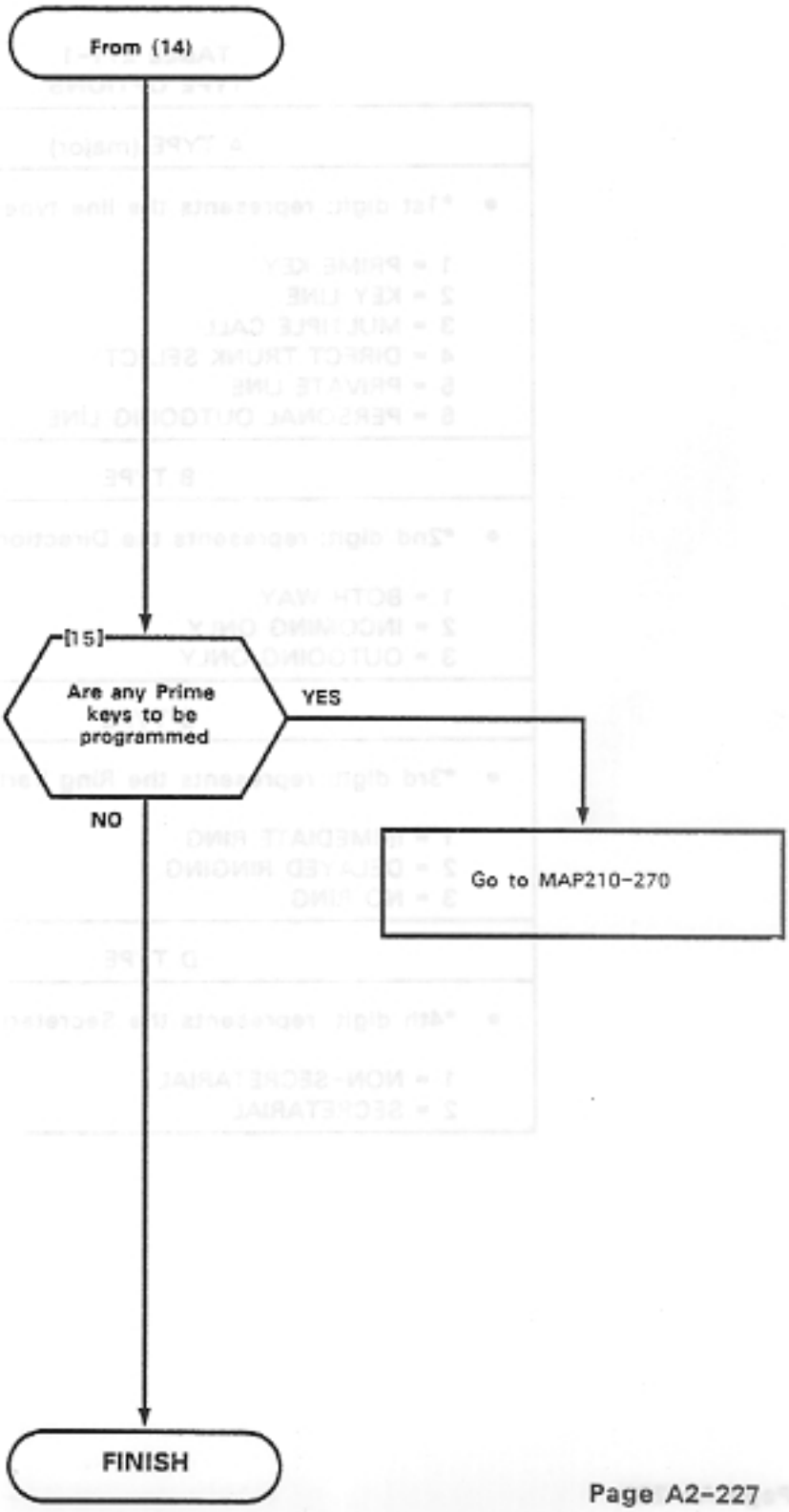

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TABLE 271-1
TYPE OPTIONS

A TYPE (major)
• *1st digit: represents the line type for the key. 1 = PRIME KEY 2 = KEY LINE 3 = MULTIPLE CALL 4 = DIRECT TRUNK SELECT 5 = PRIVATE LINE 6 = PERSONAL OUTGOING LINE
B TYPE
• *2nd digit: represents the Direction Variant. 1 = BOTH WAY 2 = INCOMING ONLY 3 = OUTGOING ONLY
C TYPE
• *3rd digit: represents the Ring Variant. 1 = IMMEDIATE RING 2 = DELAYED RINGING 3 = NO RING
D TYPE
• *4th digit: represents the Secretarial Variant. 1 = NON-SECRETARIAL 2 = SECRETARIAL

DELETE A NON-PRIME KEY
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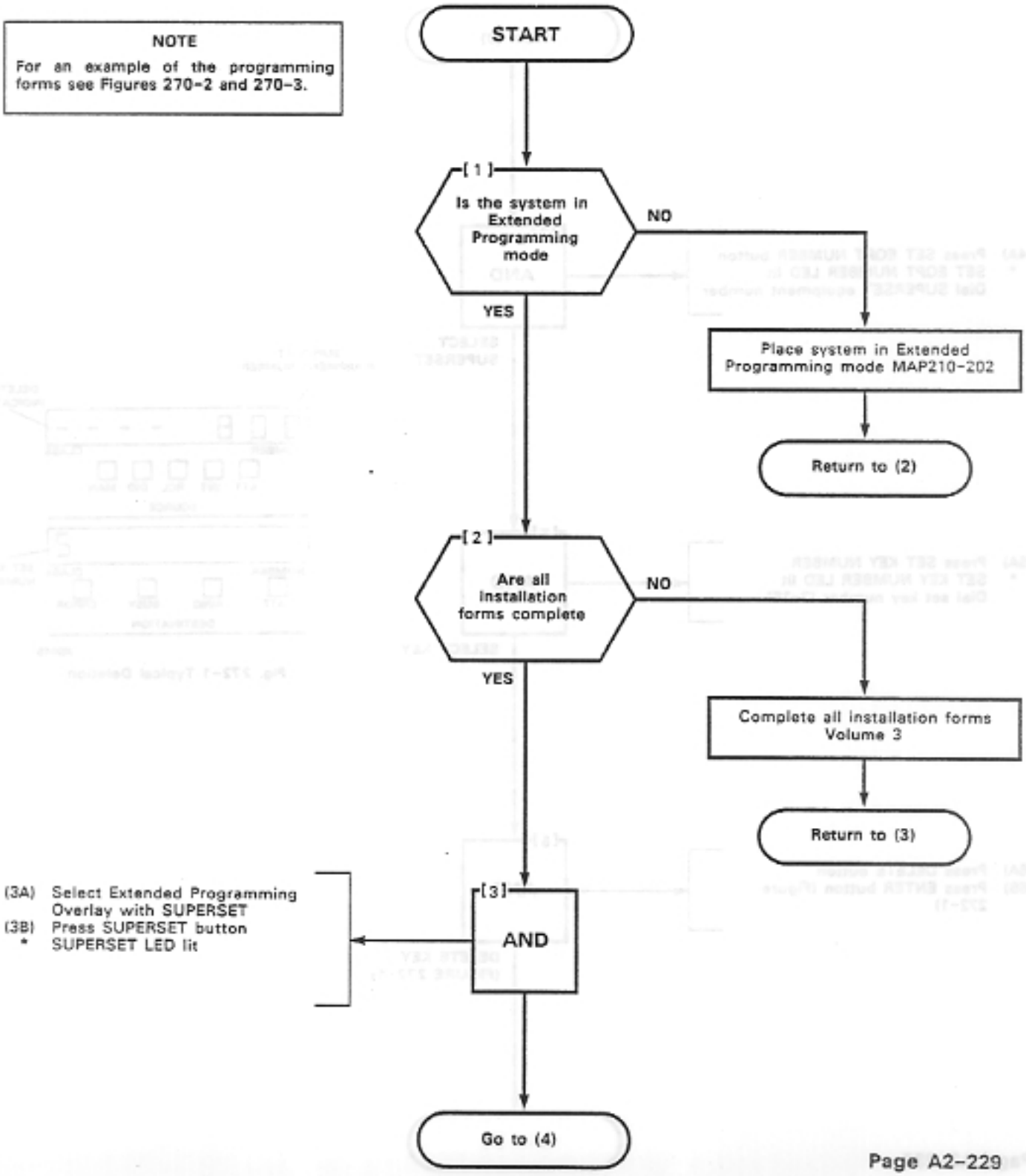
NOTE

For an example of the programming forms see Figures 270-2 and 270-3.



DELETE A NON-PRIME KEY
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From (3)

[4]

AND

(4A) Press SET EQPT NUMBER button
* SET EQPT NUMBER LED lit
Dial SUPERSET equipment number

SELECT SUPERSET

[5]

AND

(5A) Press SET KEY NUMBER
* SET KEY NUMBER LED lit
Dial set key number (2-15)

SELECT KEY

[6]

AND

(6A) Press DELETE button
(6B) Press ENTER button (Figure 272-1)

DELETE KEY (FIGURE 272-1)

Go to (7)

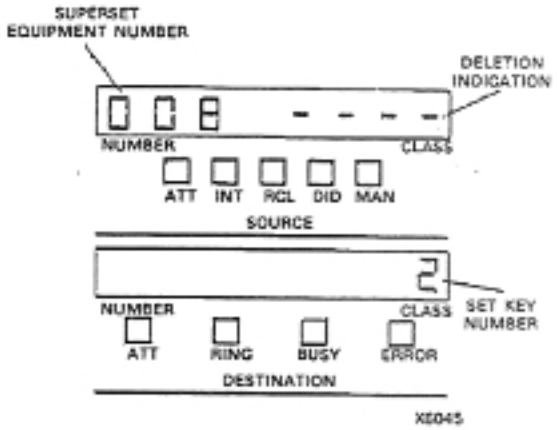

Fig. 272-1 Typical Deletion

DELETE A NON-PRIME KEY
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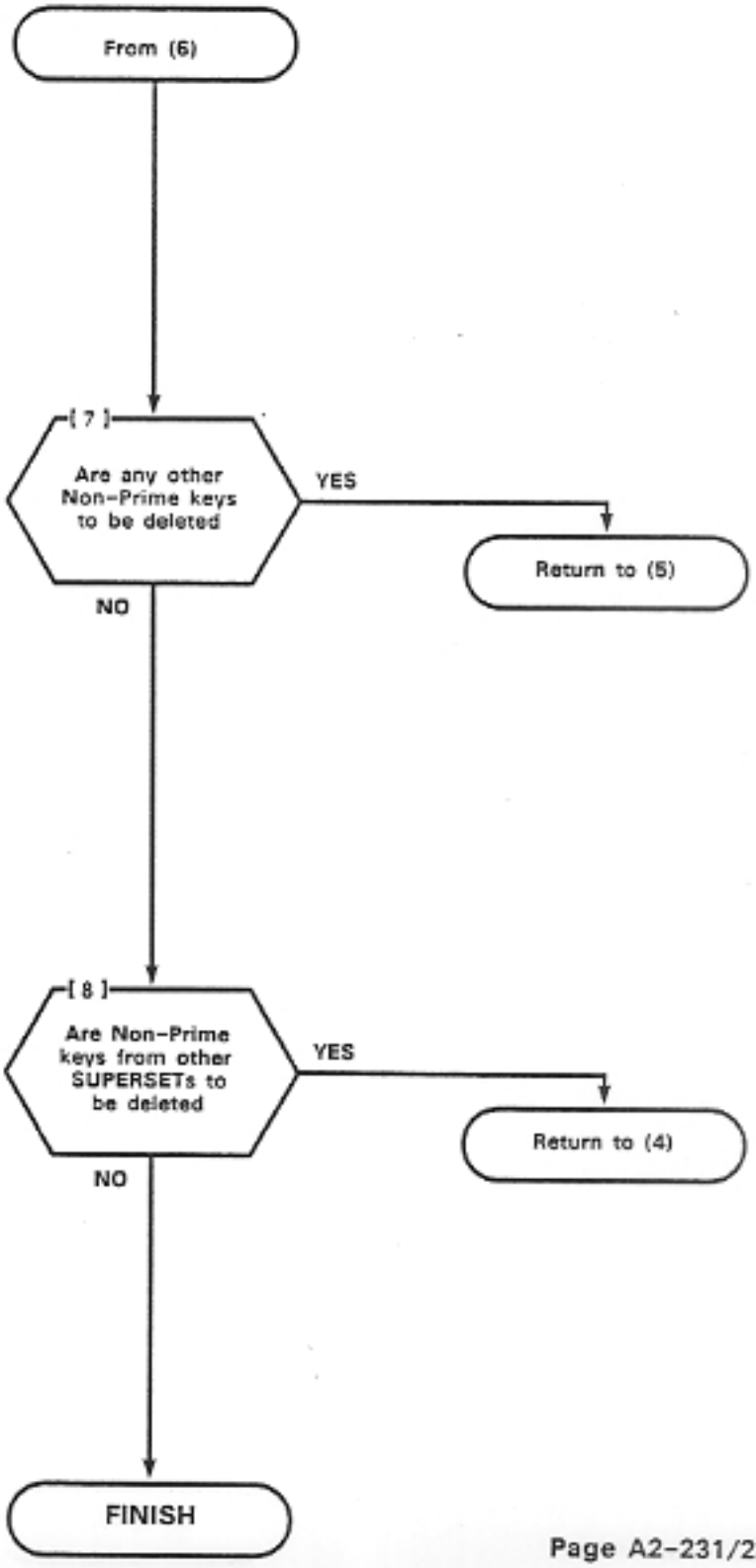

DELETE A PRIME KEY
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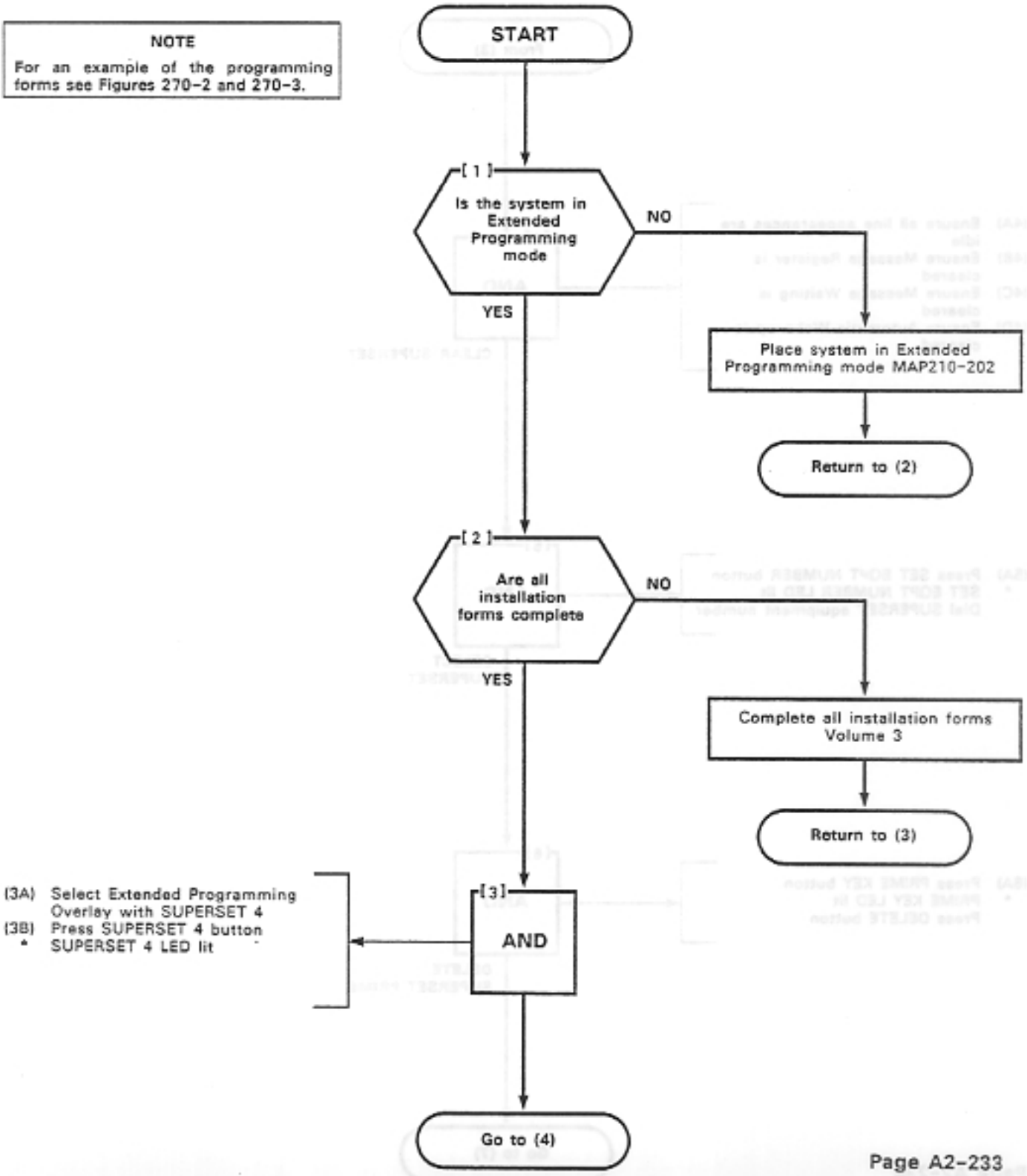
NOTE

For an example of the programming forms see Figures 270-2 and 270-3.



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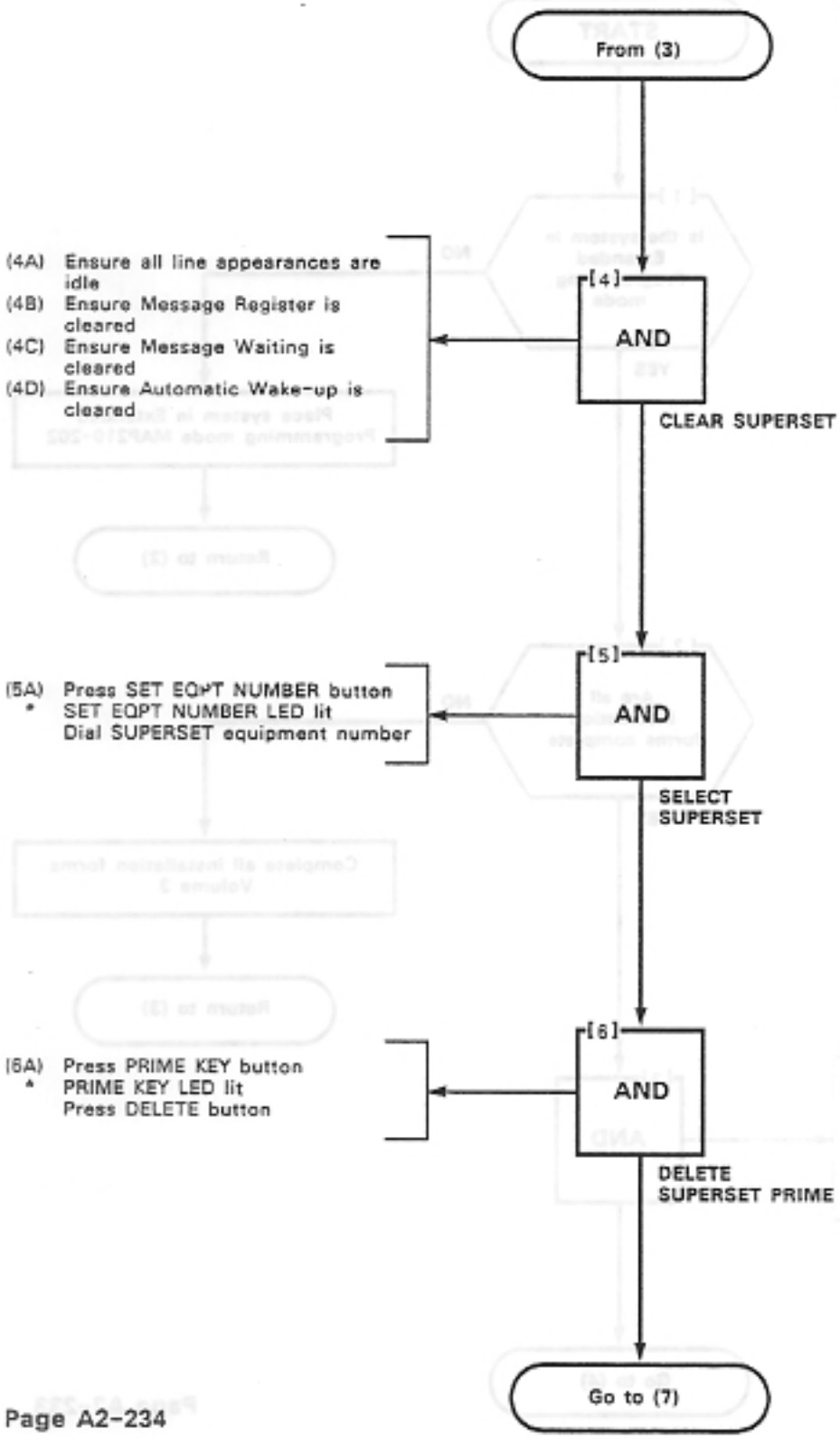

DELETE A PRIME KEY
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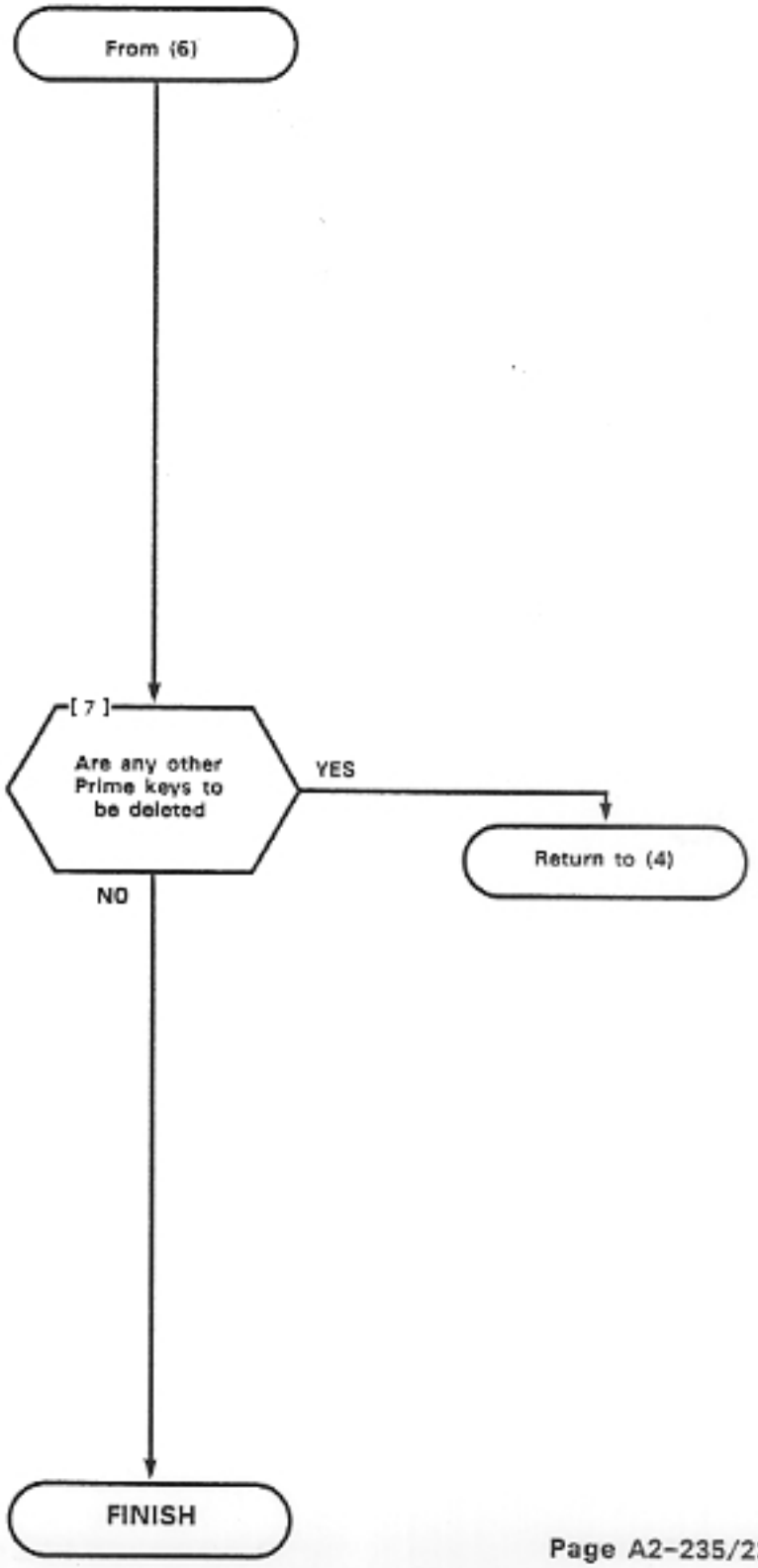

CHANGING ANY KEY
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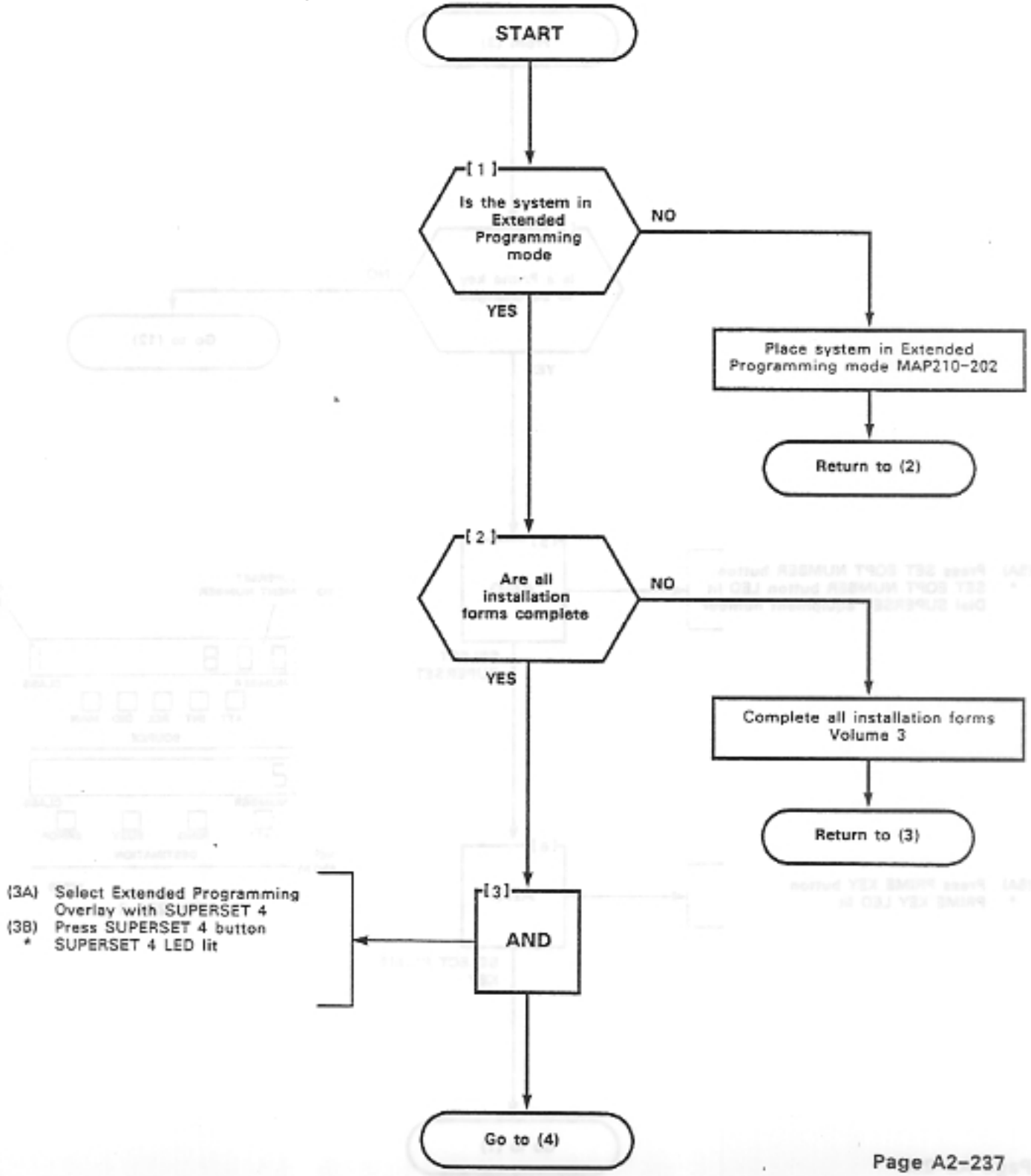

CHANGING ANY KEY
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From (3)

[4]

Is a Prime key to be changed

NO → Go to (12)

YES

[5]

AND

(5A) Press SET EQPT NUMBER button
* SET EQPT NUMBER button LED lit
Dial SUPERSET equipment number

SELECT SUPERSET

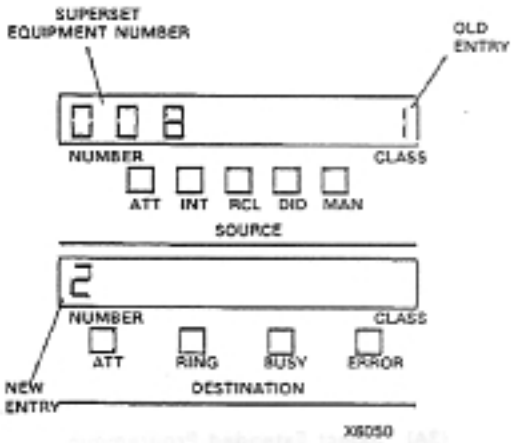

Fig. 274-1

[6]

AND

(6A) Press PRIME KEY button
* PRIME KEY LED lit

SELECT PRIME KEY

Go to (7)

CHANGING ANY KEY
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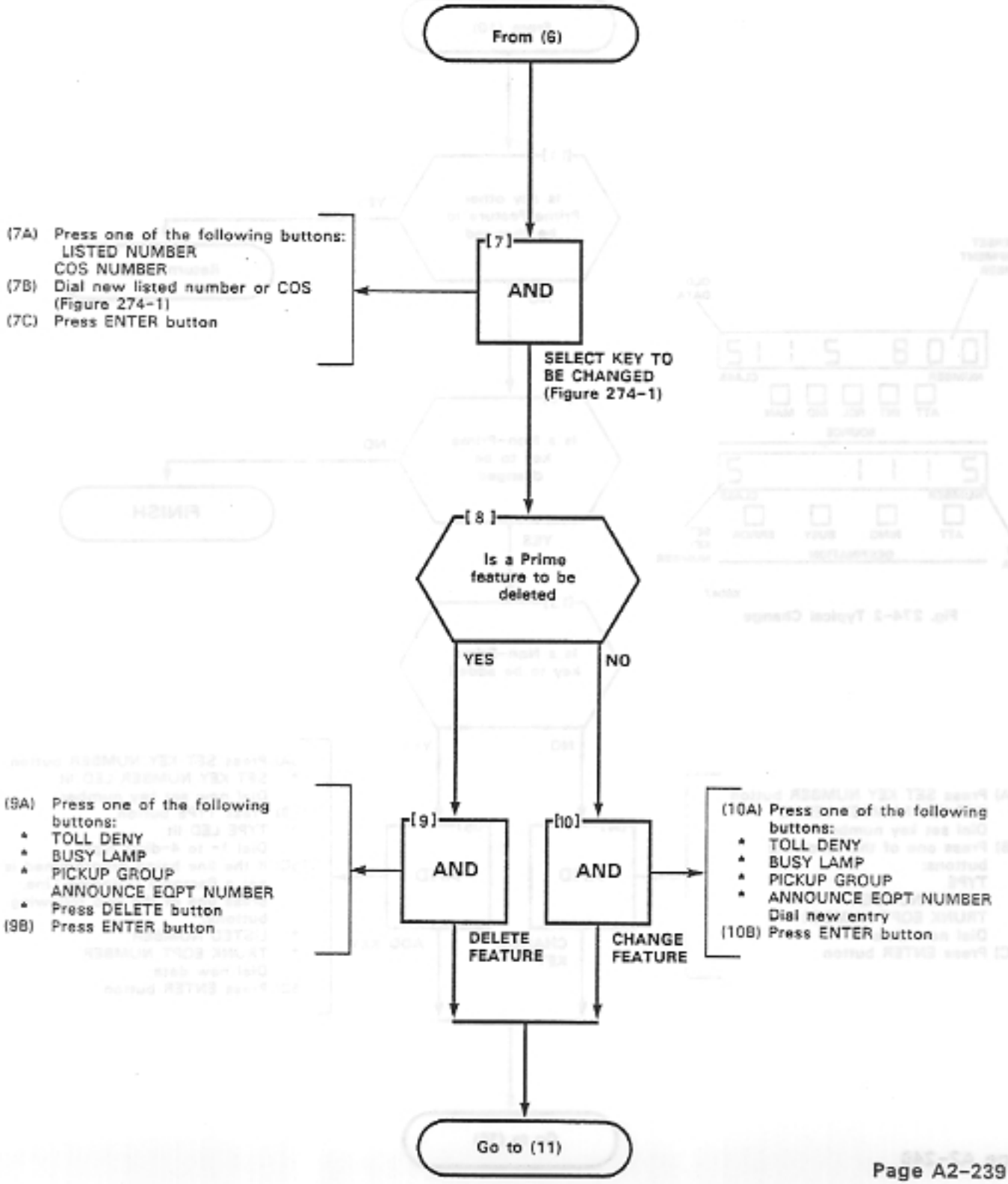

CHANGING ANY KEY
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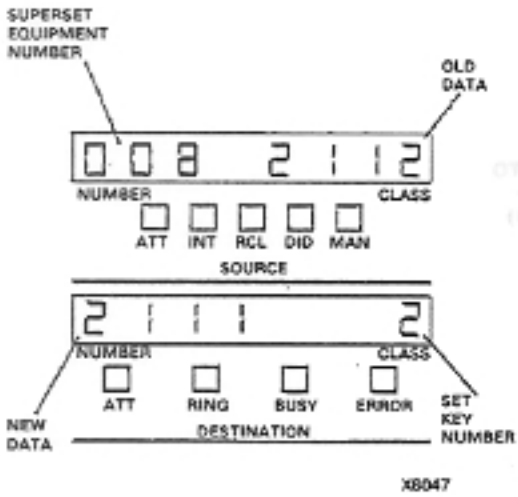

Fig. 274-2 Typical Change

From (10)

[11] Is any other Prime Feature to be changed

YES → Return to (8)

NO

[12] Is a Non-Prime key to be changed

NO → FINISH

YES

[13] Is a Non-Prime key to be added

NO

(14A) Press SET KEY NUMBER button
* SET KEY NUMBER LED lit
Dial set key number
(14B) Press one of the following buttons:
* TYPE
* LISTED NUMBER
* TRUNK EQPT NUMBER
Dial new data
(14C) Press ENTER button

[14] AND

CHANGE KEY

YES

[15] AND

ADD KEY

(15A) Press SET KEY NUMBER button
* SET KEY NUMBER LED lit
Dial new set key number
(15B) Press TYPE button
* TYPE LED lit
Dial 1- to 4-digit type
(15C) If the line being programmed is not a Personal Outgoing Line, press one of the two following buttons:
* LISTED NUMBER
* TRUNK EQPT NUMBER
Dial new data
(15D) Press ENTER button

Go to (16)

CHANGING ANY KEY
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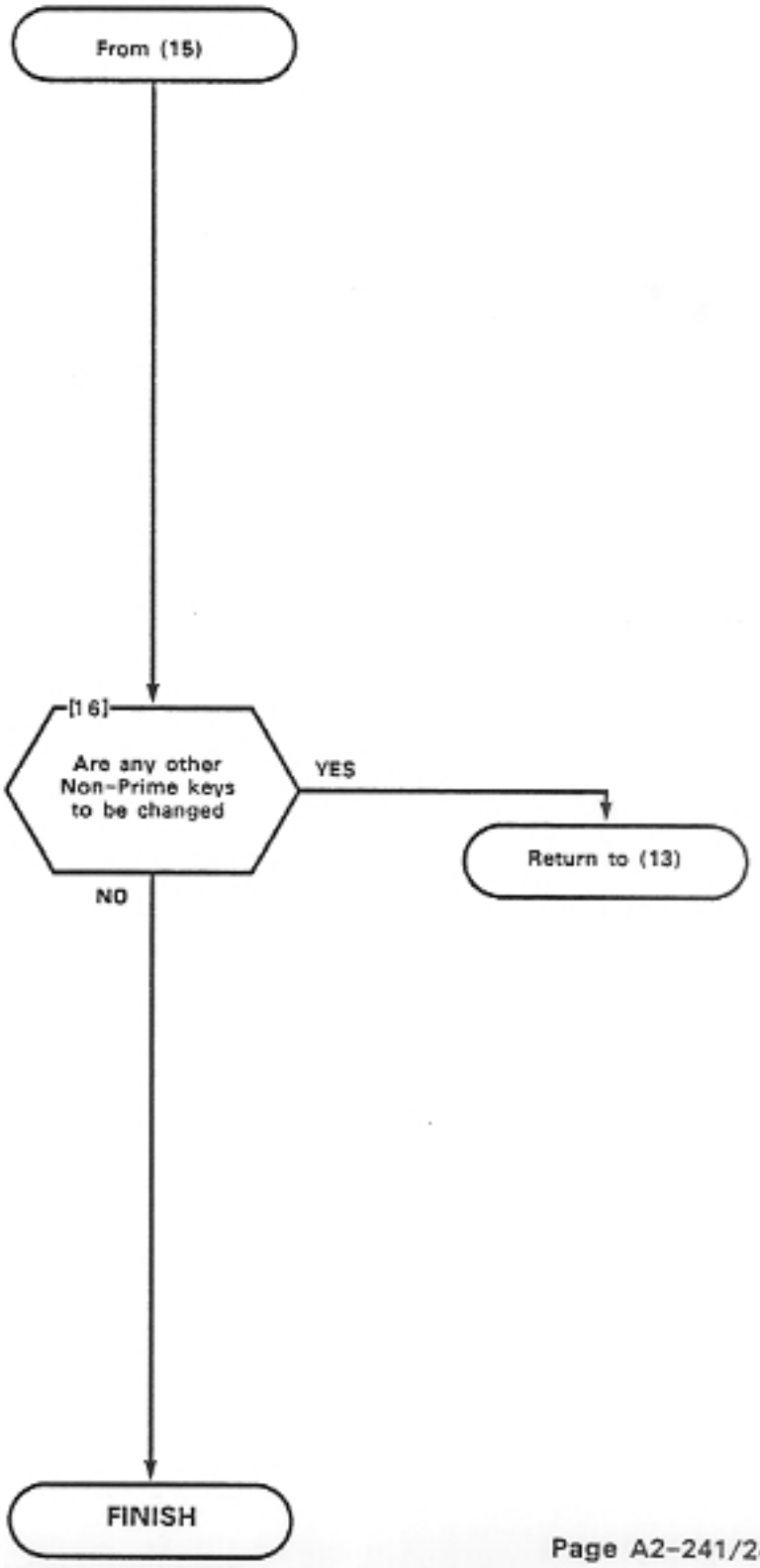

MOVING A SUPERSET
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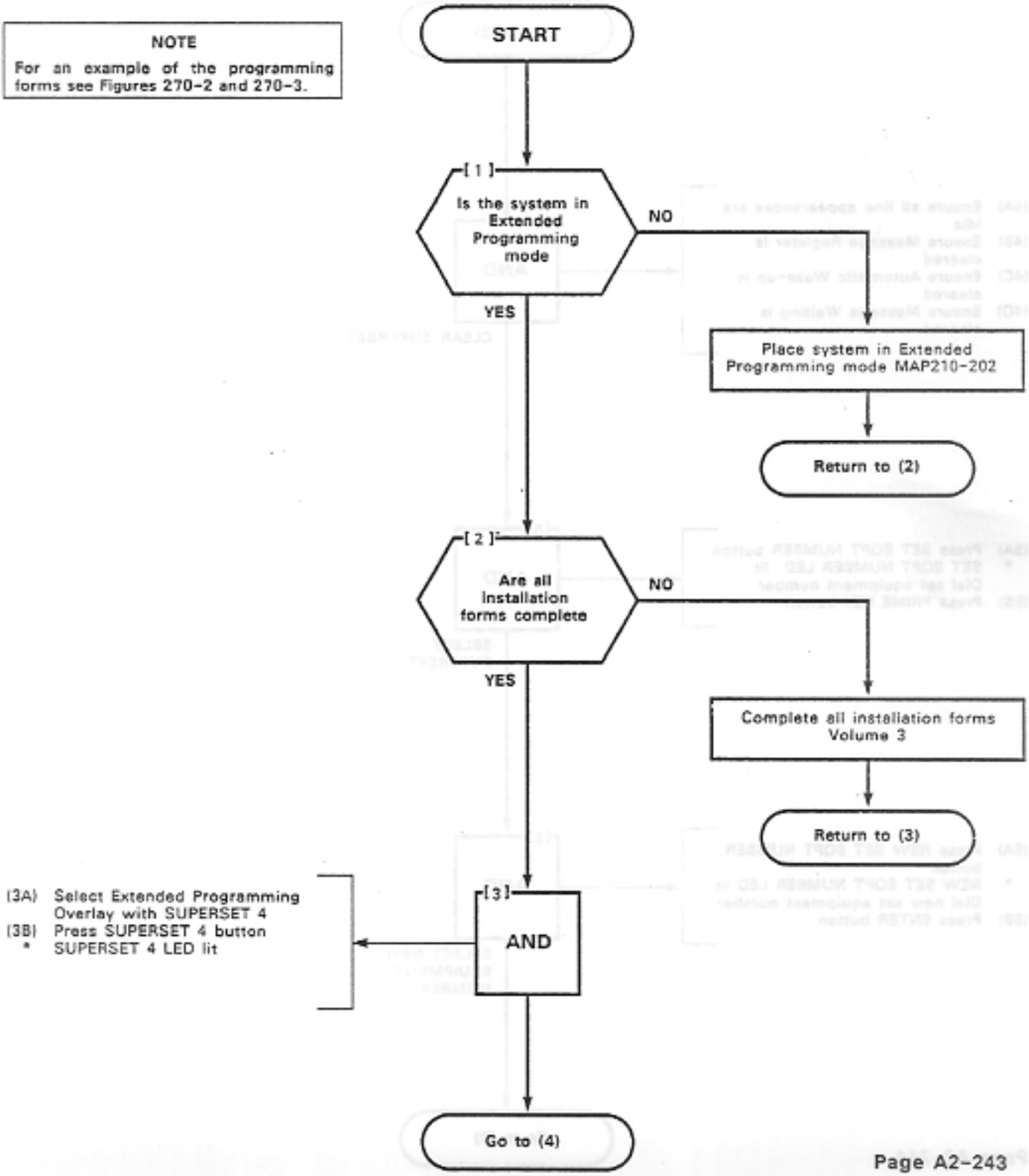
NOTE
For an example of the programming forms see Figures 270-2 and 270-3.



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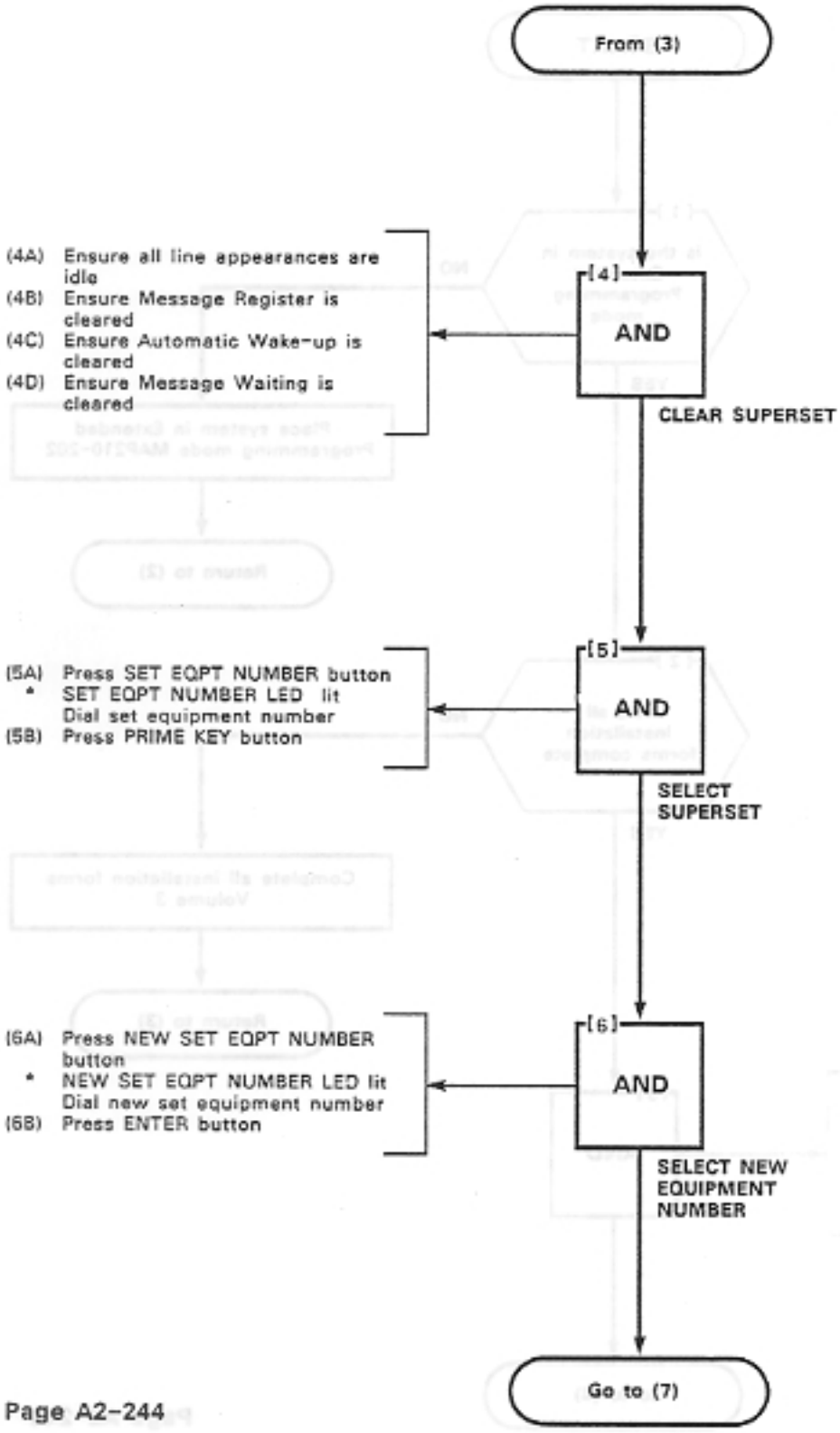

MOVING A SUPERSET
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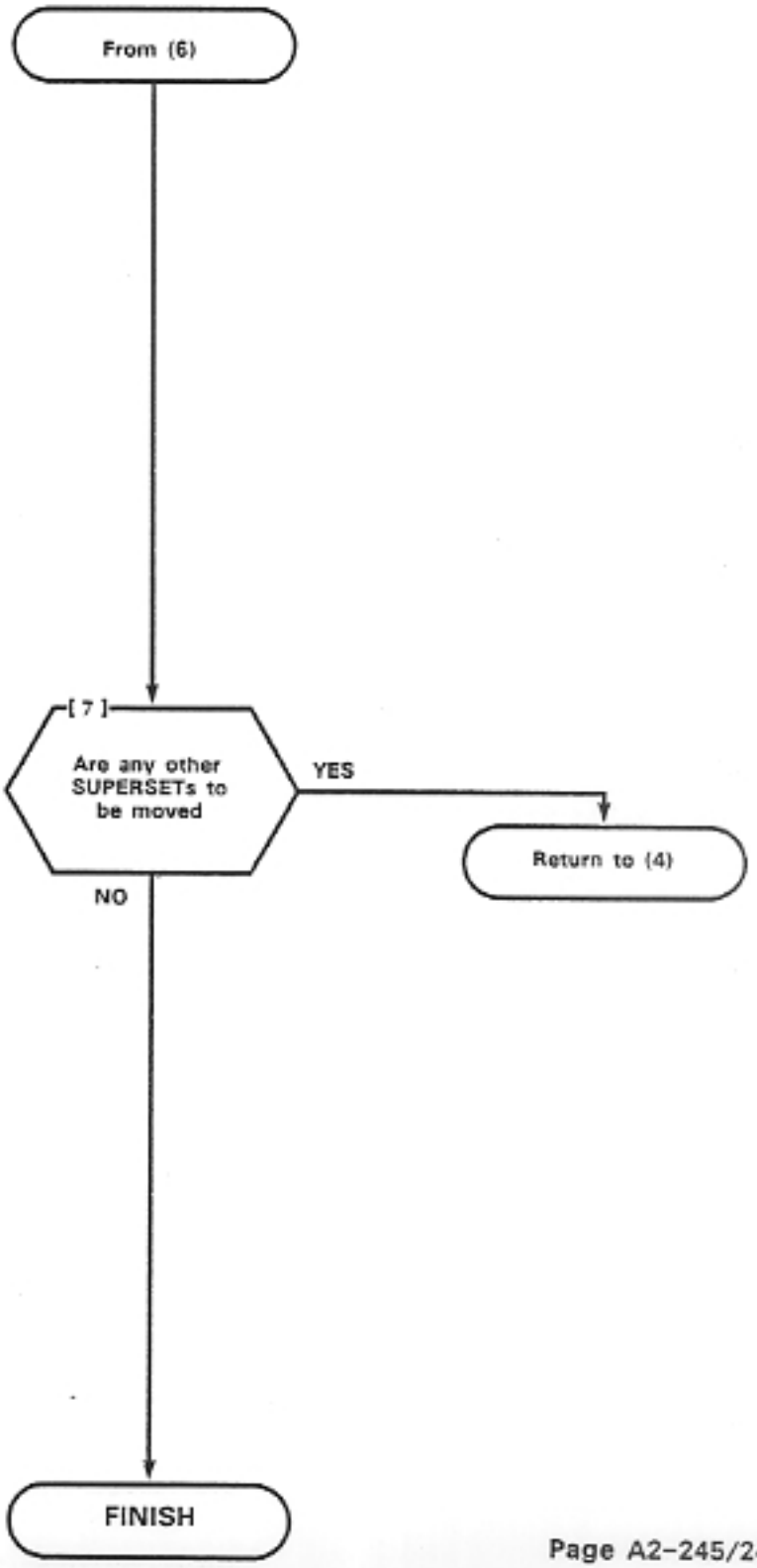

REVIEW SUPERSET PROGRAMMING
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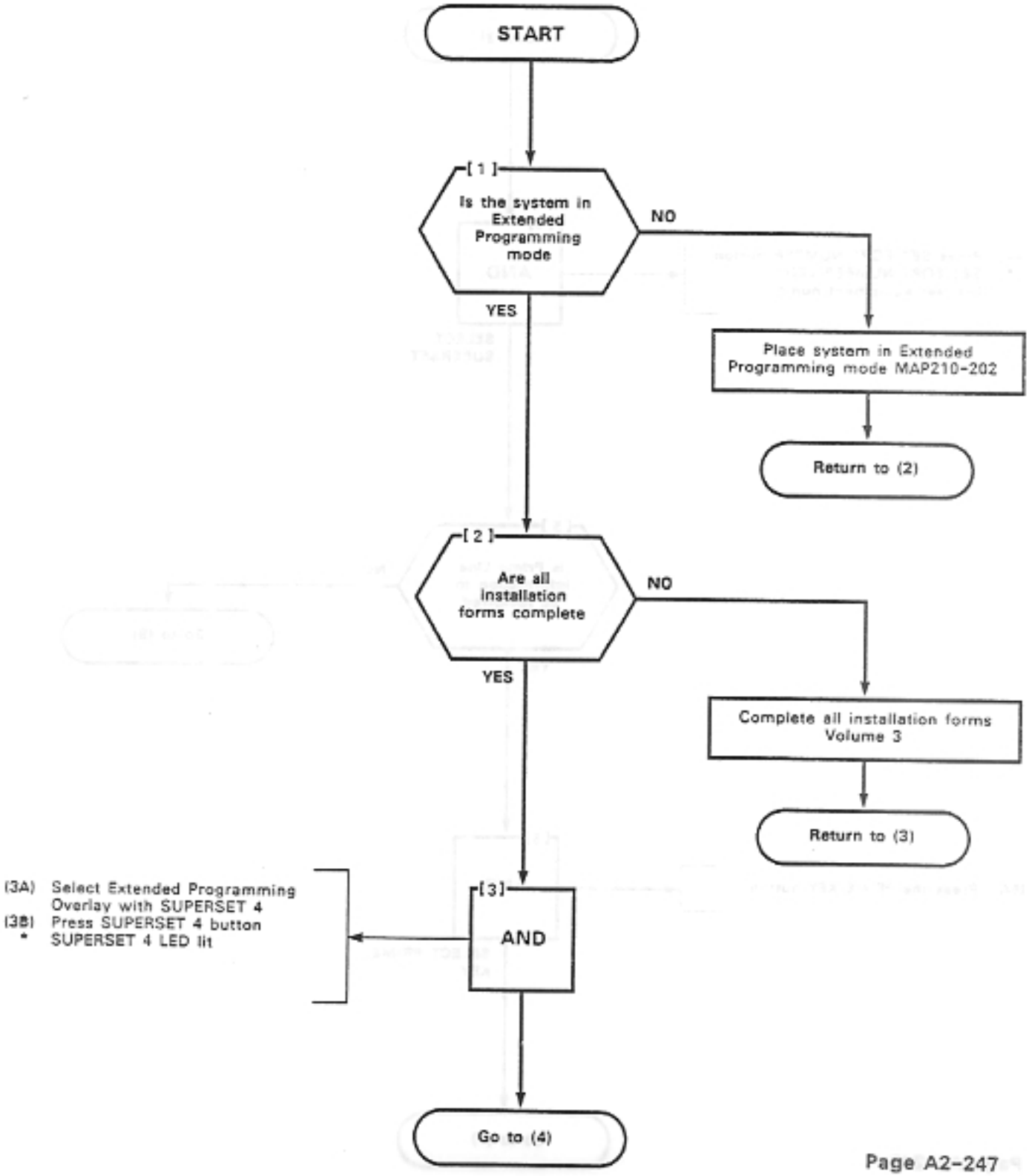

REVIEW SUPERSET PROGRAMMING
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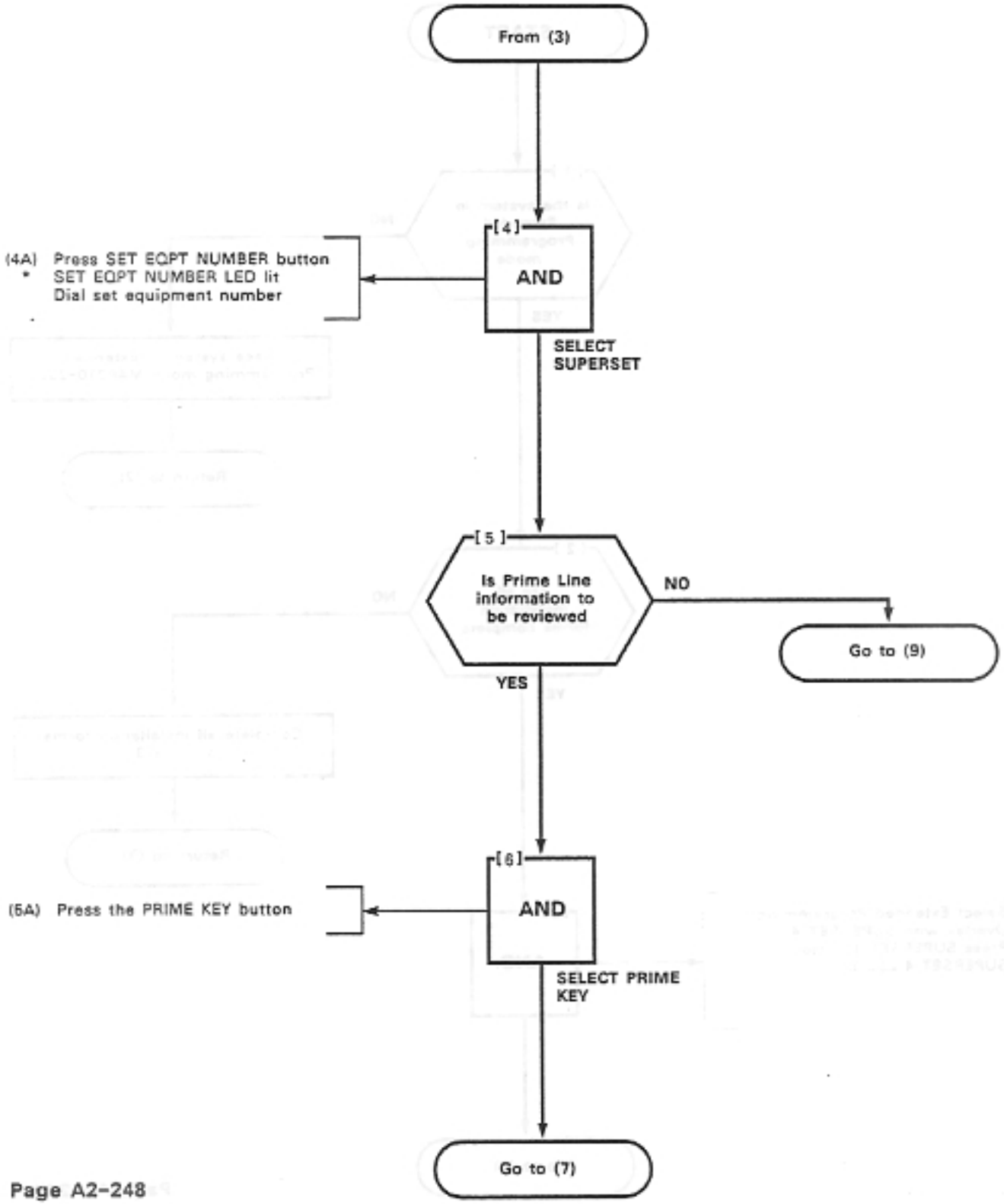

REVIEW SUPERSET PROGRAMMING
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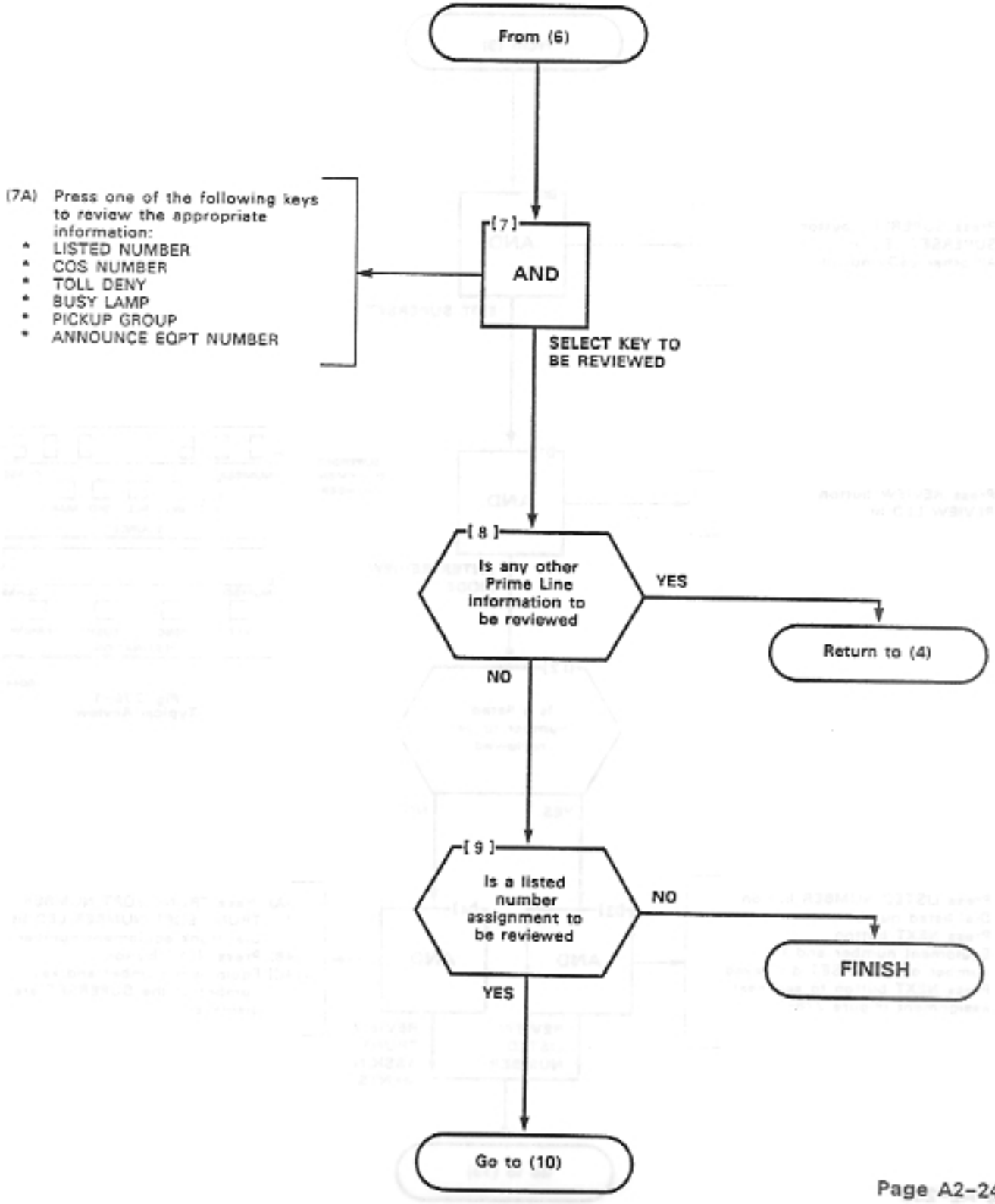

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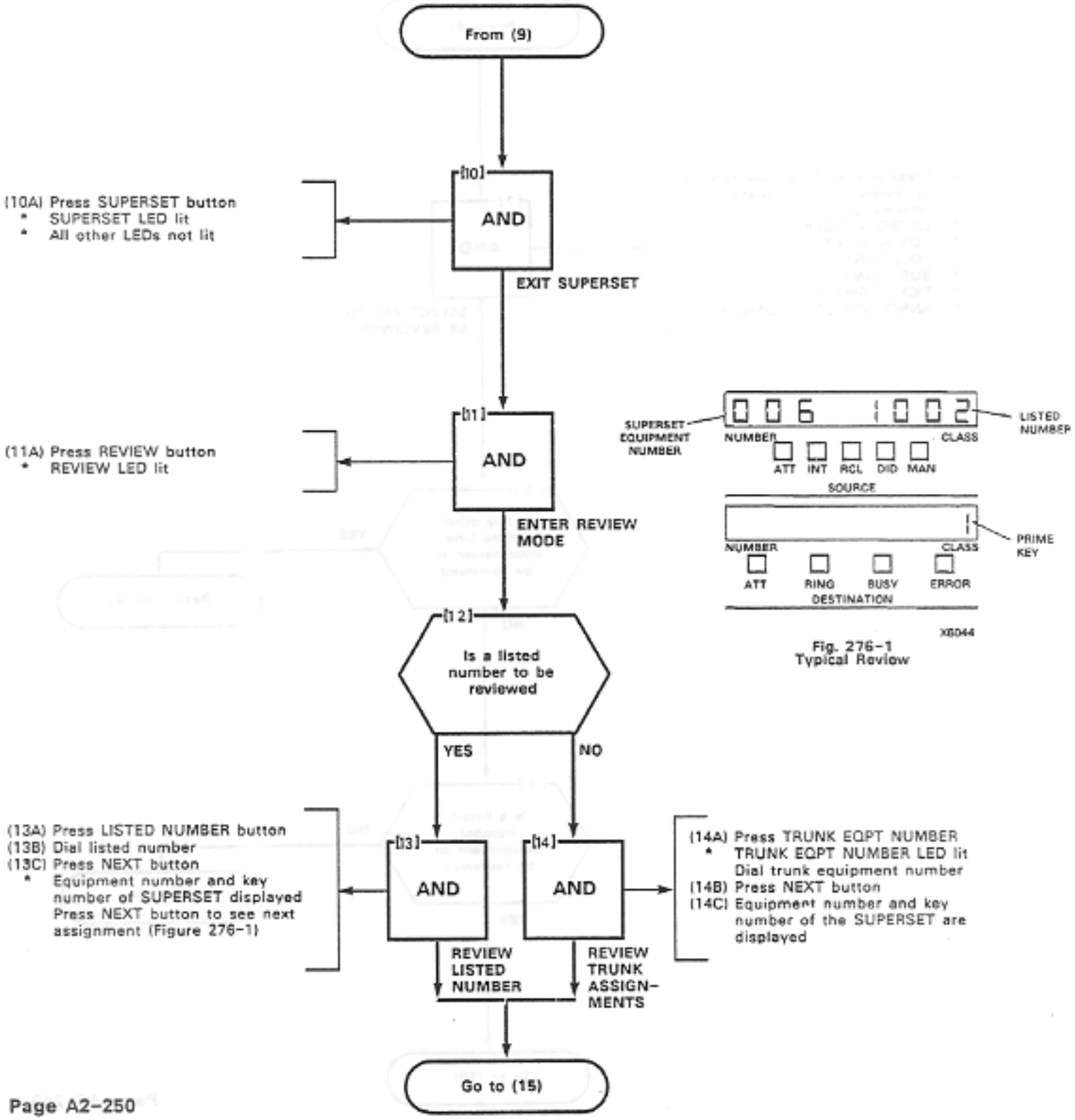

Fig. 276-1
Typical Review

REVIEW SUPERSET PROGRAMMING
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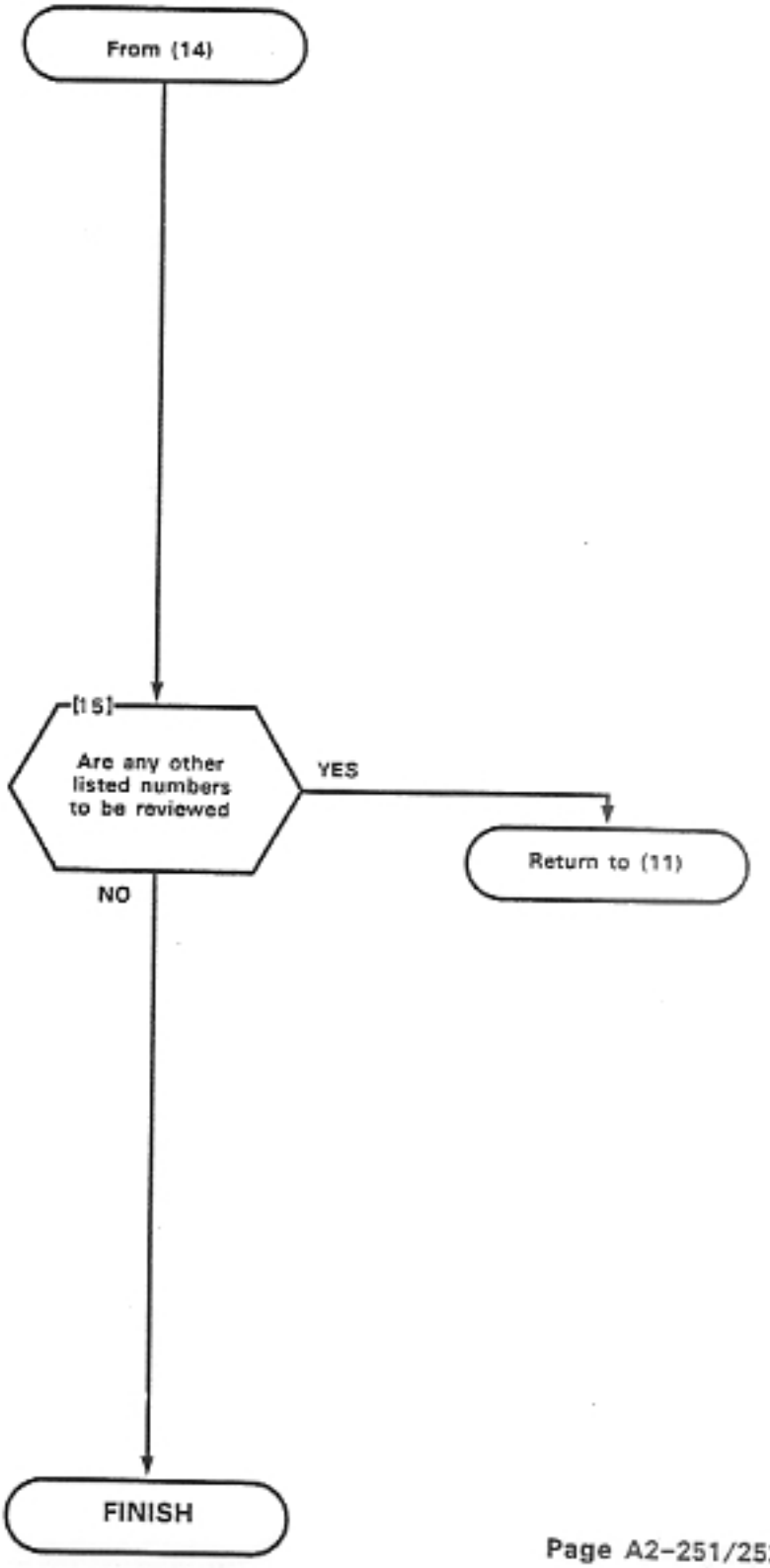

TERMINATING PROGRAMMING
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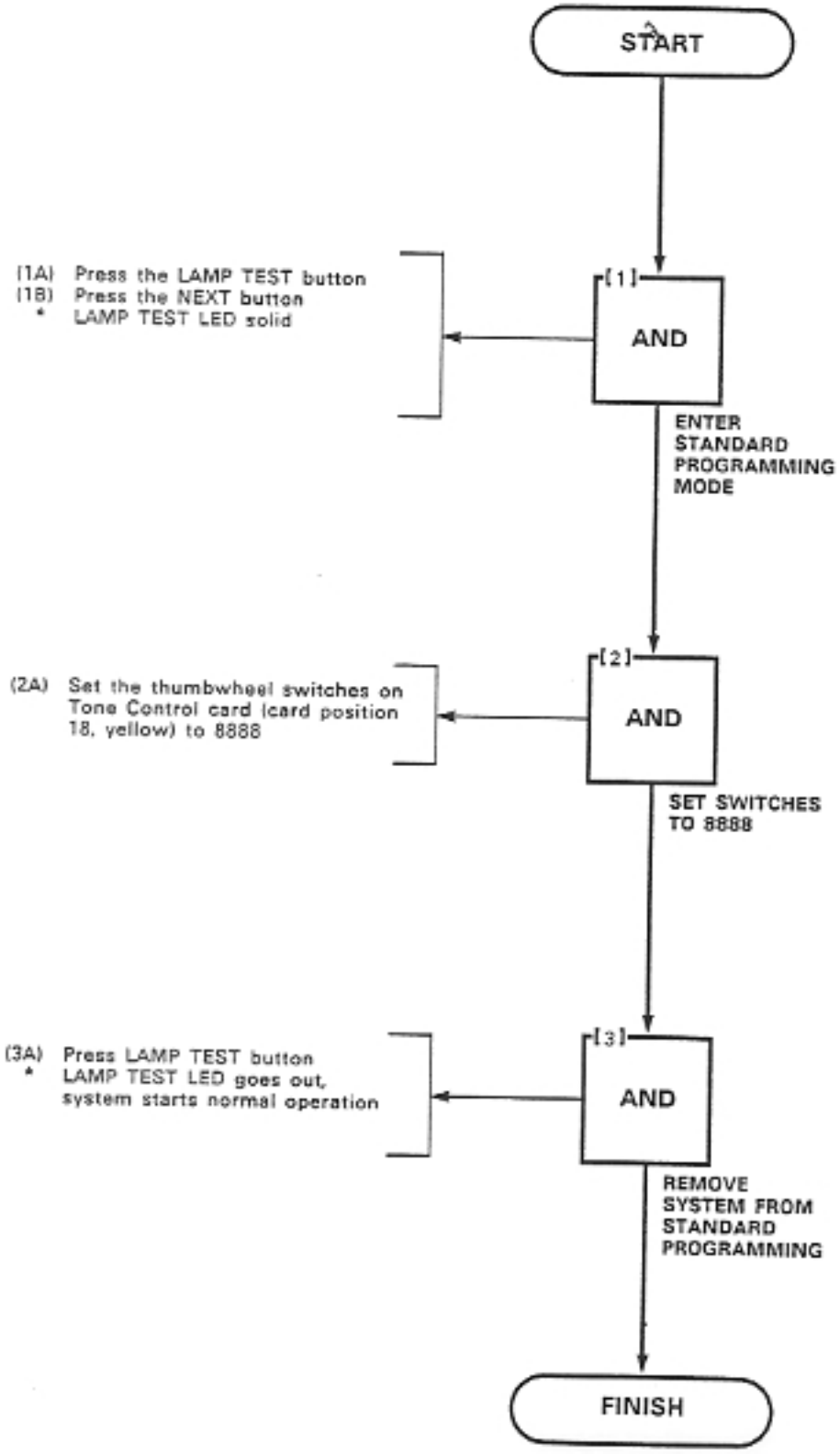


SX-100®/SX-200®
SUPERSWITCH®
AUTOMATIC CALL DISTRIBUTION SYSTEM
SYSTEM TEST PROCEDURES
GENERIC ACD

CONTENTS PAGE

CONTENTS PAGE

1. INTRODUCTION

General

1.01 This Section details the system test procedures to be performed after the system installation (Section MITL9105/9110-090-200-NA) and programming (Section MITL9105/9110-090-210-NA) have been completed. Upon completion of the tests listed in this Section, all programmed system options and features will have been checked.

Reason for Issue

1.02 This Section has been issued to include the system test procedures for the extensions and the console for the ACD system.

SUPERSET 4

1.03 The SUPERSET 4 is similar to a standard telephone in that both are subject to Class Of Service limitations. To ensure that all Class Of Service related features it is only necessary to perform the System tests for that particular Class Of Service at a standard telephone. To test the actual mechanical functionality of the SUPERSET 4 see Section MITL9105/9110-090-320-NA.

SUPERSET 3

1.04 The SUPERSET 3 is similar to a standard telephone in that both are subject to Class Of Service limitations. To ensure that all Class Of Service related features it is only necessary to perform the System tests for that particular Class Of Service at a standard telephone.

2. DETAILED TEST PROCEDURES

General

2.01 All test procedures in this Section are performed in accordance with MITEL Action Procedures (MAPs). An outline of the purpose and use of MAPs is contained in Appendix 1. Actual system test procedures to be used for the System are as detailed in the following paragraphs.

System Test Procedures

2.02 The System Test Procedures are divided into two appendices: Extension Tests and Console Tests. The test level relationship is given in Tables 2-1 and 2-2. Some tests may not be relevant; i.e. Hotel/Motel (H/M) options when the system is configured for a business arrangement. Tables 2-3 and 2-4 give the suggested applications of these tests as Hotel/Motel (H/M) and Business. Note: in some situations some systems may use Options that seem out of context to the Hotel/Motel and Business sections, however the relevant test should

still be performed for these options.

TABLE 2-1
EXTENSION TESTS R1

TEST	APPLICATION
Set Up Test Equipment	All
Broker's Call	All
Call Forwarding - Busy	All
Call Forwarding - Don't Answer	All
Call Forwarding - Follow Me	All
Call Park	All
Call Pickup	All
Camp-On	All
Consultation Hold/Transfer/Add-On	All
Automatic Callback - Don't Answer	All
Automatic Callback - Busy	All
Meet Me Conference	All
Executive Busy Override	All
Paging	All
Do Not Disturb	All
Call Hold	All
Room Status	H/M
Automatic Wake-Up (Alarm Call)	H/M
Personal Speed Call	H/M
Common Use Speed Call	Business
External Call Forwarding	All
Transfer with Privacy	All
Account Code	Business
Hands-Free Station	All
Call Forwarding Busy/Don't Answer	All
Enable Non-CO to Trunk Connect	All
Repeated Camp-On Tones	All
Extension Reset	All

TABLE 2-2
CONSOLE TEST

R1

TEST	APPLICATION
Answer Incoming Call	All
Automatic Callback	All
Extending Internal Calls	All
Answering Recall	All
Override	All
Flexible Night Service	All
Trunk Busy Operation	All
Trunk Group Supervisor Access	All
Trunk Group Dial Access	All
Test Termination	All
Answer Incoming CO Trunk Call	All
Supervisor Do Not Disturb	All
Message Waiting	All
Supervisor Call Forwarding - Busy	All
Supervisor Call Forwarding - Don't Answer	All
Supervisor Call Forwarding - Follow Me	All
Supervisor Call Forwarding Busy/Don't Answer	All
Supervisor Controlled Conference	All
Supervisor Station Busy Out	All
Call Block	H/M
Supervisor Do Not Disturb	All
Message Registration	H/M
Controlled Outgoing Call Restriction	All
Room Status	H/M
Automatic Wake-Up (Alarm Call)	H/M
Message Waiting H/M	H/M
Console Date Display and Date Utility	All
Customer Program Dump Load	All
Controlling the Printer	All
Room Audit	H/M
System Identifier	All
Common Use Speed Call	Business
Customer Programming	All
External Call Forwarding	All
Test Audible Tone Indicators	All
SUPERSET Disconnect Alarm	All

TABLE 2-3
EXTENSION APPLICATIONS R1

TEST	APPLICATION
Set Up Test Equipment	Both
Broker's Call	Business
Call Forwarding - Busy	Business
Call Forwarding - Don't Answer	Business
Call Forwarding - Follow Me	Business
Call Park	Business
Call Pickup	Business
Camp-On	Business
Consultation Hold/Transfer/Add-On	Business
Automatic Callback - Don't Answer	Business
Automatic Callback - Busy	Business
Meet Me Conference	Business
Executive Busy Override	Business
Paging	Business
Do Not Disturb	Both
Call Hold	Business
Room Status	H/M
Automatic Wake-Up (Alarm Call)	H/M
Personal Speed Call	Business
Common Use Speed Call	Business
External Call Forwarding	Business
Transfer with Privacy	Business
Account Code	Business
Hands-Free Station	Business
Call Forwarding Busy/Don't Answer	Business
Enable Non-CO to Trunk Connect	Business
Repeated Camp-On Tones	Business

TABLE 2-4
CONSOLE APPLICATION

R1

TEST	APPLICATION
Answer Incoming Call	Both
Automatic Callback	Both
Extending Internal Calls	Both
Answering Recall	Both
Override	Business
Flexible Night Service	Both
Trunk Busy Operation	Both
Trunk Group Supervisor Access	Both
Trunk Group Dial Access	Both
Test Termination	Both
Answer Incoming CO Trunk Call	Both
Supervisor Do Not Disturb	Both
Message Waiting	H/M
Supervisor Call Forwarding - Busy	Business
Supervisor Call Forwarding - Don't Answer	Business
Supervisor Call Forwarding - Follow Me	Business
Supervisor Call Forwarding Busy/Don't Answer	Business
Supervisor Controlled Conference	Business
Supervisor Station Busy Out	Both
Call Block	H/M
Supervisor Do Not Disturb	H/M
Message Registration	H/M
Controlled Outgoing Call Restriction	H/M
Room Status	H/M
Automatic Wake-Up (Alarm Call)	H/M
Message Waiting H/M	H/M
Console Date Display and Date Utility	Both
Customer Program Dump Load	Both
Controlling the Printer	Both
Room Audit	H/M
System Identifier	Both
Common Use Speed Call	Business
Customer Programming	Both
External Call Forwarding	Business
Test Audible Tone Indicators	Both
SUPERSET Disconnect Alarm	Business

APPENDIX 1

MITEL ACTION PROCEDURES

GENERAL

A1.01 Task-oriented functions in this Section are implemented using MITEL Action Procedures (MAPs).

A1.02 A MAP is a step-by-step procedure using a flow chart principle, written and illustrated where necessary to a level of detail that allows both experienced and inexperienced personnel to carry out the tasks detailed. A MAP contains two levels of information as follows:

(a) For experienced personnel, a series of steps (level one) each numbered (n) and annotated with minimal information.

(b) For inexperienced personnel, each step referred to in (a) above is amplified by a connected series of numbered substeps (nA) (level two).

A1.03 A typical example of a MAP is shown in Figure A1-1, with the two levels detailed.

MAP SYMBOLS

A1.04 There are four basic symbol shapes which may be used in a MAP, and are defined as follows.

A1.05 **AND Block:** Used to indicate a level one step that must be performed. Consists of a square with the word AND centered in the block.

A1.06 **OR Block:** Used to indicate a choice of level one steps, one of which must be performed. Consists of a rectangle, with the text centered in the block, and with the word OR appearing between the alternative operations.

A1.07 The rectangle is also used to border instructions which imply that the operative must perform a task outside the scope of the MAP. The text is centered in the rectangle.

A1.08 **DECISION Block:** Used to indicate a decision within the level one steps which must be made. The symbol is based on a hexagon with the top and bottom sides extended. Decision text is centered in the symbol.

A1.09 **START/FINISH/JUMP TO Block:** Used to indicate the start and finish of a MAP. Also used to indicate "jump to" points within the MAP, for example "go to (n)" or "from (n)" or "return to (n)". The

symbol is a rectangle with semicircular ends. Text is centered in the symbol.

THE OPERATORS' USE OF MAPS

Experienced Operator

A1.10 For the experienced operator to complete a task using a MAP, reference to the sequential short form level one steps is usually all that is necessary. Using Figure A1-1 as an example, the experienced operator would proceed as follows.

A1.11 A (1) makes a decision based on the information within the block. If the answer is YES, the operator must proceed to a different MAP. If the answer is NO, the operator is faced with another decision at block (2).

A1.12 At (2) if the decision is NO, there is no requirement to proceed further and the test is abandoned. This naturally results in a FINISH block. If the decision is YES, the operator proceeds to (3) and (4) in succession; i.e. dials the DID station number and completes the call to the check extension.

A1.13 The description of the instructions carried out in A1.05 and A1.06 have assumed that the level of competence of the operator is such that short form level one steps contain sufficient information, and therefore the operator reads only the center column of the MAP, top to bottom of the page.

Inexperienced Operator

A1.14 If the operator's experience is such that the level two substeps should be referred to as follows.

(a) At (1) and (2) make the decisions called for at these steps as before.

(b) At step (3) dial the DID station number by performing substeps (3A), (3B) and (3C).

In terms of steps and substeps, the operative follows a decision, decision then step and substep paths in the example shown.

TOOLS, TEST EQUIPMENT AND SPECIAL INSTRUCTIONS

A1.16 Any tools, test equipment or special instructions that the operator required or needs to know are stated on the first page of each MAP. If the MAP is long, and contains a number of sub procedures, these are listed in synopsis form on the first page.

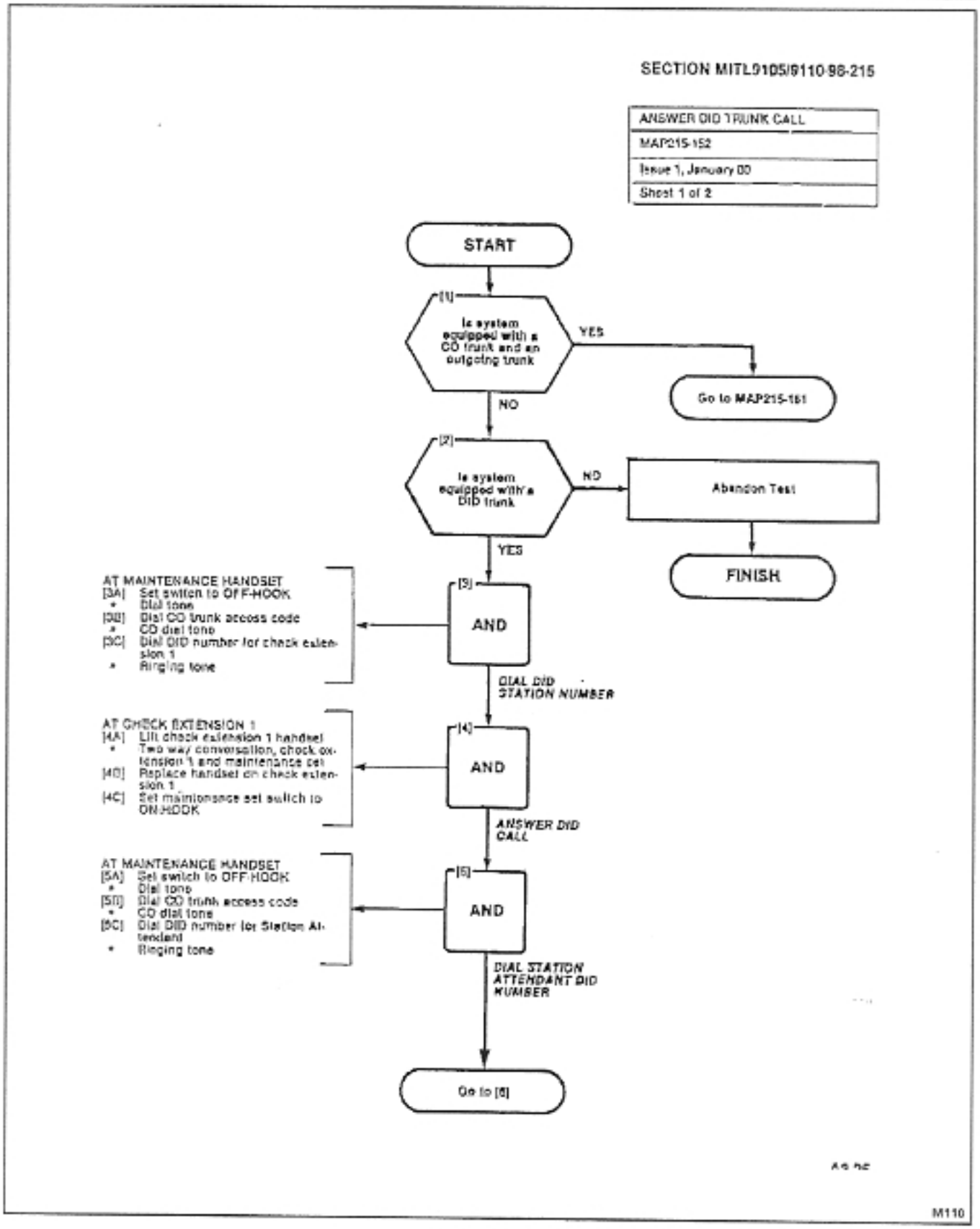


Figure A1-1 Typical MAP Page

APPENDIX 2
EXTENSION TESTS

A2.01 The following test are a series of extension tests. Specific reference should be made to Table 2-1 and Table 2-3. These Tables will determine if the test is relevant to the system application.

TABLE A2-1
EXTENSION TESTS

R1

ORDER	OPTION	MAP No.
1	Set Up Test Equipment	215-201
2	Broker's Call	215-202
3	Call Forwarding - Busy	215-203
4	Call Forwarding - Don't Answer	215-204
5	Call Forwarding - Follow Me	215-205
6	Call Park	215-206
7	Call Pickup	215-207
8	Camp-On	215-208
9	Consulatation Hold/Transfer/Add-On	215-209
10	Automatic Callback - Don't Answer	215-210
11	Automatic Callback - Busy	215-211
12	Meet Me Conference	215-212
13	Executive Busy Override	215-213
14	Paging	215-214
15	Do Not Disturb	215-215
16	Call Hold	215-216
17	Room Status	215-217
18	Automatic Wake-Up (Alarm Call)	215-218
19	Common Use Speed Call	215-219
20	Personal Speed Call	215-220
21	External Call Forwarding	215-221
22	Transfer with Privacy	215-222
23	Account Code	215-223
24	Hands-Free Station	215-224
25	Call Forwarding Busy/Don't Answer	215-225
26	Enable Non-CO to Trunk Connect	215-226
27	Repeated Camp-On Tones	215-227
28	Extension Reset	215-228

APPENDIX 3
CONSOLE TESTS

A3.01 The following tests are a series of console tests. Specific reference should be made to Table 2-2 and Table 2-4. These Tables will determine if the test is relevant to the system application.

TABLE A3-1
CONSOLE TESTS

R1

ORDER	TEST	MAP No.
1	Answer Incoming Call	215-300
2	Automatic Callback	215-301
3	Extending Internal Calls	215-302
4	Answering Recall	215-303
5	Override	215-304
6	Flexible Night Service	215-305
7	Trunk Busy Operation	215-306
8	Trunk Group Supervisor Access	215-307
9	Trunk Group Dial Access	215-308
10	Test Termination	215-309
11	Answer Incoming CO Trunk Call	215-310
12	Supervisor Do Not Disturb	215-311
13	Message Waiting	215-312
14	Supervisor Call Forwarding - Busy	215-313
15	Supervisor Call Forwarding - Don't Answer	215-314
16	Supervisor Call Forwarding - Follow Me	215-315
17	Supervisor Call Forwarding - Busy/Don't Answer	215-316
18	Supervisor-Controlled Conference	215-317
19	Supervisor Station Busy-out	215-318
20	Block	215-319
21	Supervisor Do Not Disturb (H/M)M	215-320
22	Message Registration	215-321
23	Controlled Outgoing Call Restriction	215-322
24	Room Status	215-323
25	Automatic Wake-Up (Alarm Call)	215-324
26	Message Waiting H/M	215-325
27	Console Date Display and Date Utility	215-326
28	Customer Program Dump Load	215-327
29	Controlling the Printer	215-328
30	Room Audit	215-329
31	System Identifier	215-330
32	Common Use Speed Call	215-331
33	Customer Programming	215-332
34	External Call Forwarding	215-333
35	Test Audible Tone Indicators	215-334
36	Single Digit Dialing	215-335
37	Common Alerting Devices	215-336
38	Answer DID Trunk Call	215-337
39	SUPERSET Disconnect Alarm	215-338

SET UP TEST EQUIPMENT
MAP215-201
Issue 1, September 1983
Sheet 1 of 2

TEST EQUIPMENT REQUIRED
Maintenance Handset (BUTT-IN)
Console
1, 2, and 3 Telephone Sets (Check Extensions located within reach of equipment cabinet).

START

Note: Check extension must have access to all features to be tested.

[1] AND

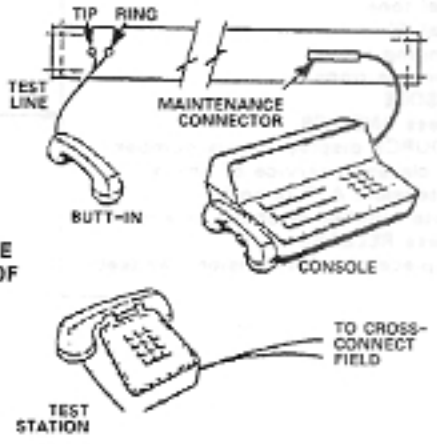
(1A) Unlock and open cabinet door on cabinet versions
ON MAINTENANCE PANEL
(1B) Connect maintenance handset Tip lead to TIP stud (Fig. 201-1)
(1C) Connect maintenance handset Ring lead to RING stud
(1D) Insert console connector into MAINTENANCE CONNECTOR
AT CHECK EXTENSION 1, 2, AND 3
(1E) Connect check extension Tip and Ring lead to TIP and RING pins on Cross-Connect Field

CONNECT TEST EQUIPMENT (FIG. 201-1)

[2] AND

AT MAINTENANCE HANDSET
(2A) Set switch to OFF-HOOK
* Dial tone
(2B) Dial 0
* Ringing tone
* Console rings
AT CONSOLE
(2C) Press ANSWER
* SOURCE display shows number and class-of-service of test line, ATT lamp lit
(2D) Note number of test line
(2E) Press RELEASE
(2F) Set maintenance handset switch to ON-HOOK

DETERMINE NUMBER OF TEST LINE



X288

Fig. 201-2

[3] AND

AT CHECK EXTENSION 1
(3A) Lift handset
* Dial tone
(3B) Dial '0'
* Ringing tone
* Console rings
AT CONSOLE
(3C) Press ANSWER
* SOURCE display shows number and class-of-service of check extension, ATT lamp lit
(3D) Note number of check extension
(3E) Press RELEASE
(3F) Replace check extension handset

DETERMINE NUMBER OF CHECK EXTENSION 1

Go to (4)

SET UP TEST EQUIPMENT
MAP215- 201
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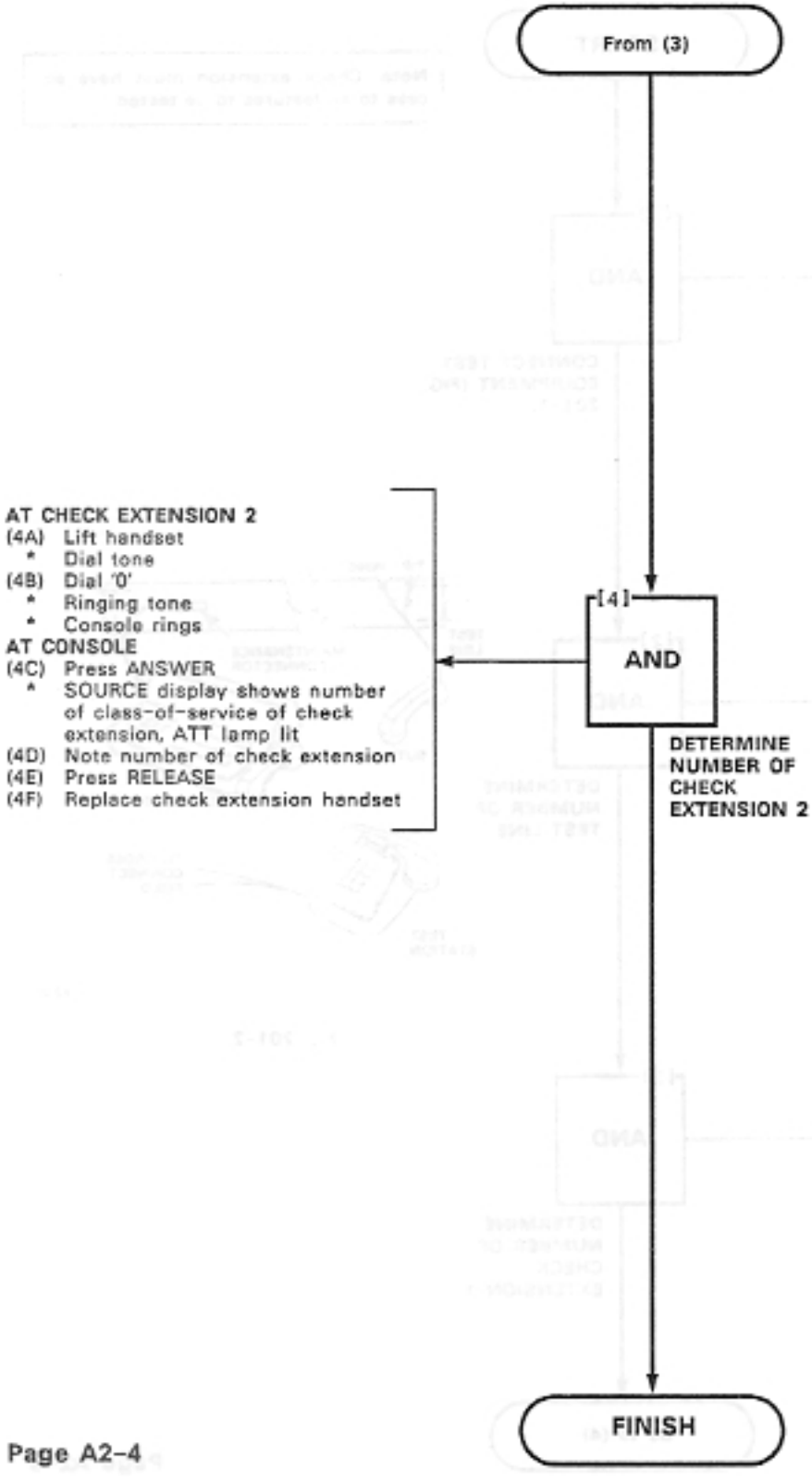
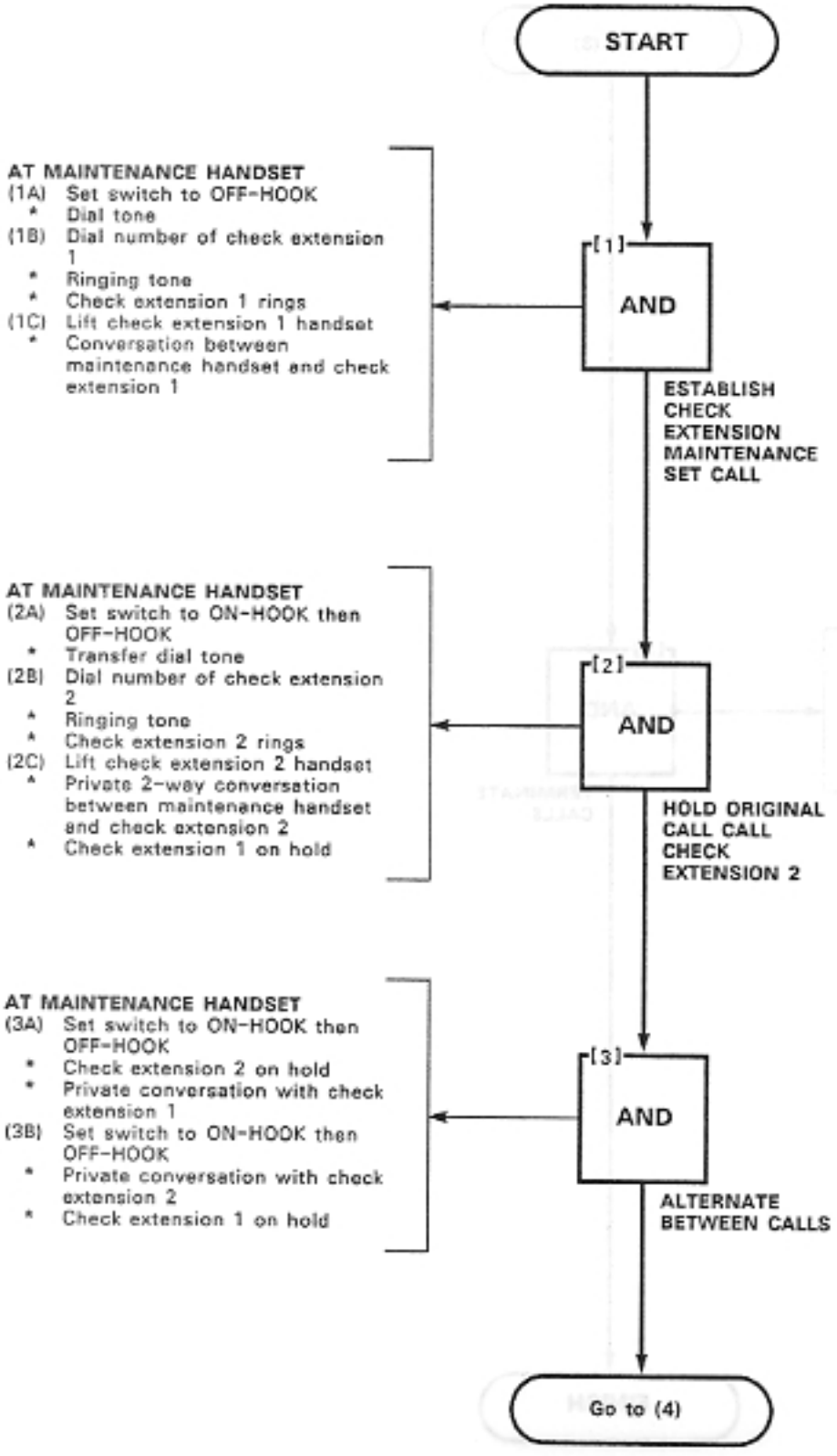
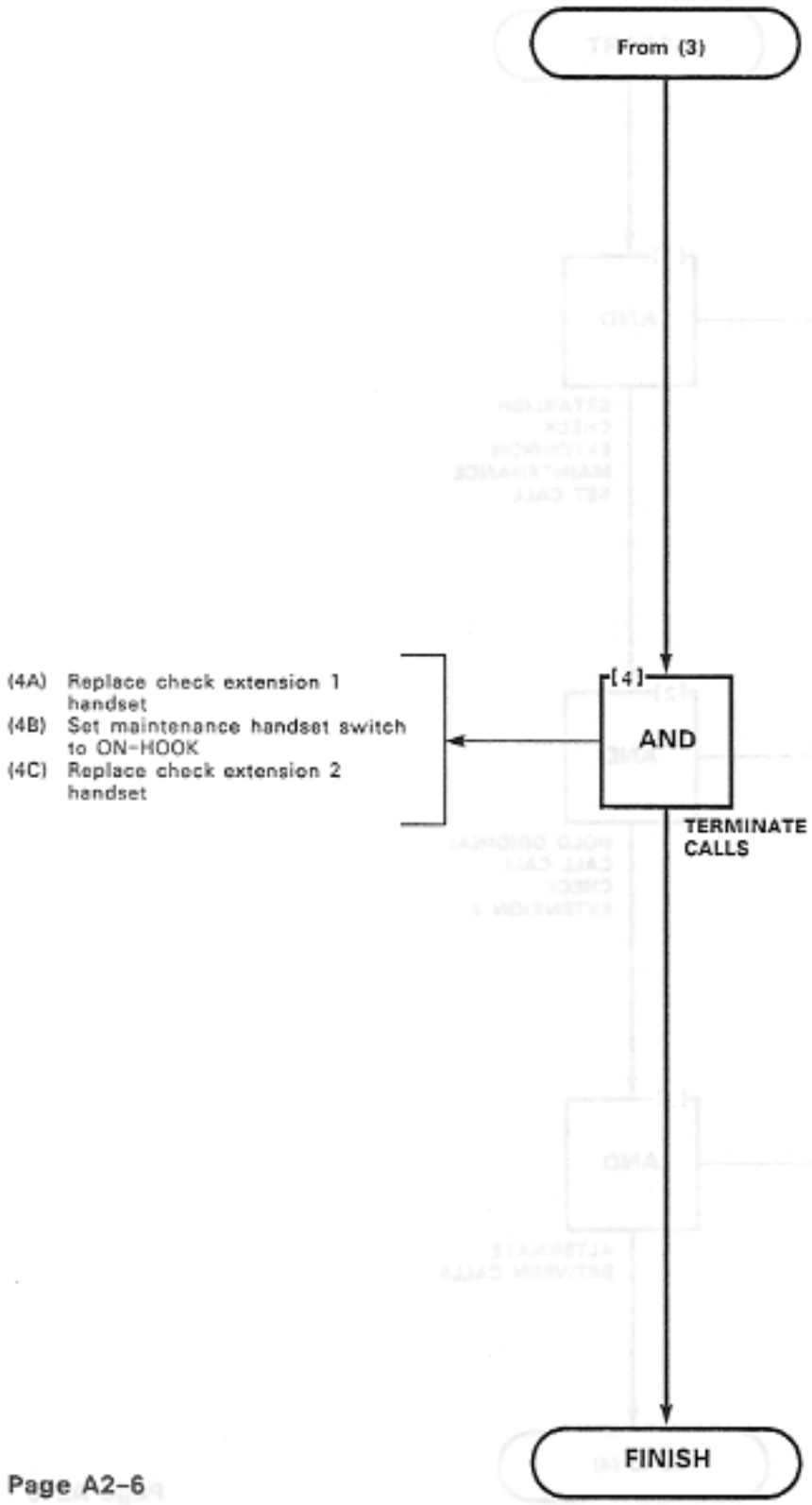
Sheet 2 of 2



BROKER'S CALL
MAP215-202
Issue 1, September 1983
Sheet 1 of 2



BROKER'S CALL
MAP215- 202
Issue 1, September 1983
Sheet 2 of 2



CALL FORWARDING – BUSY
MAP215-203
Issue 1, September 1983
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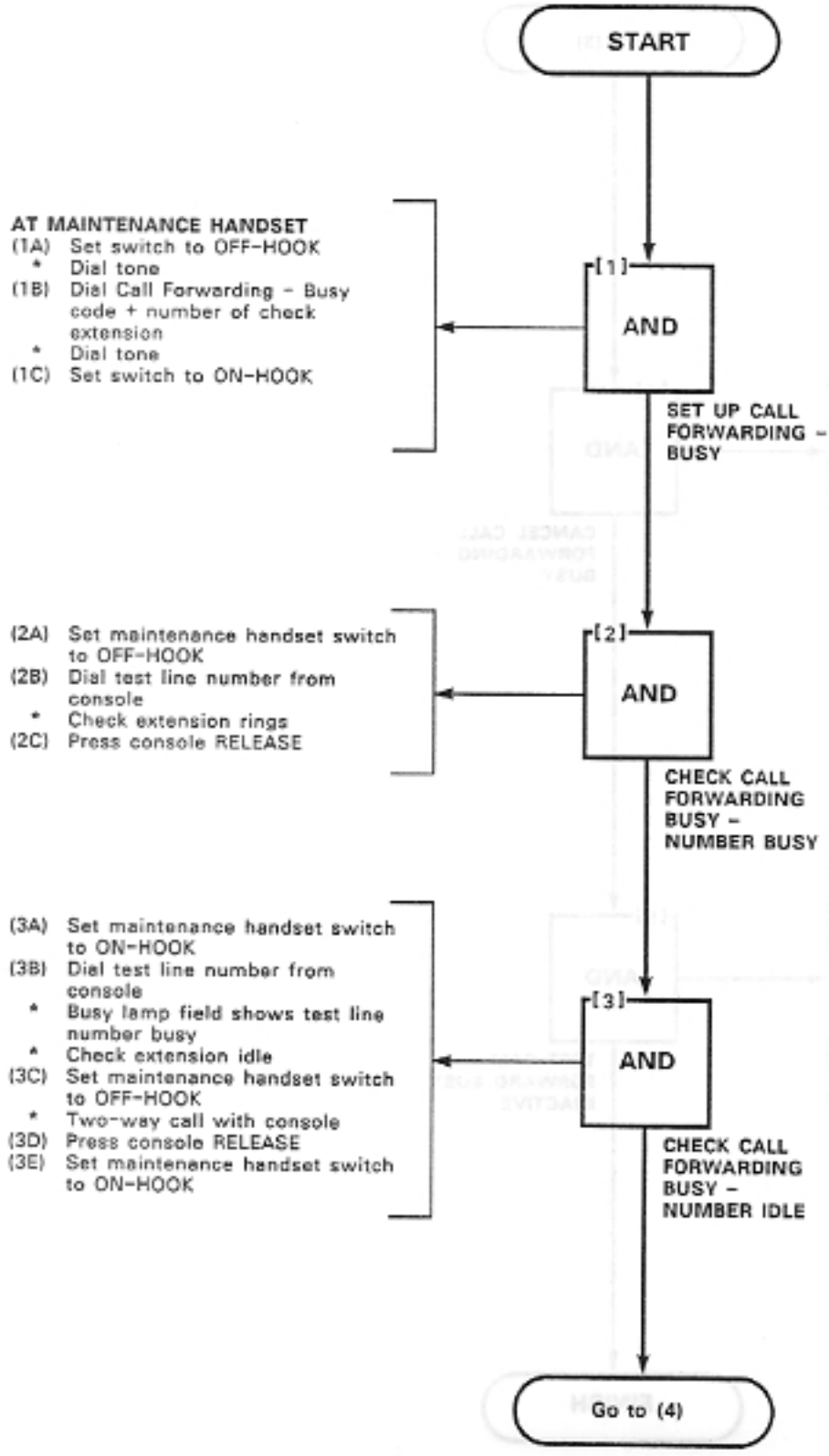
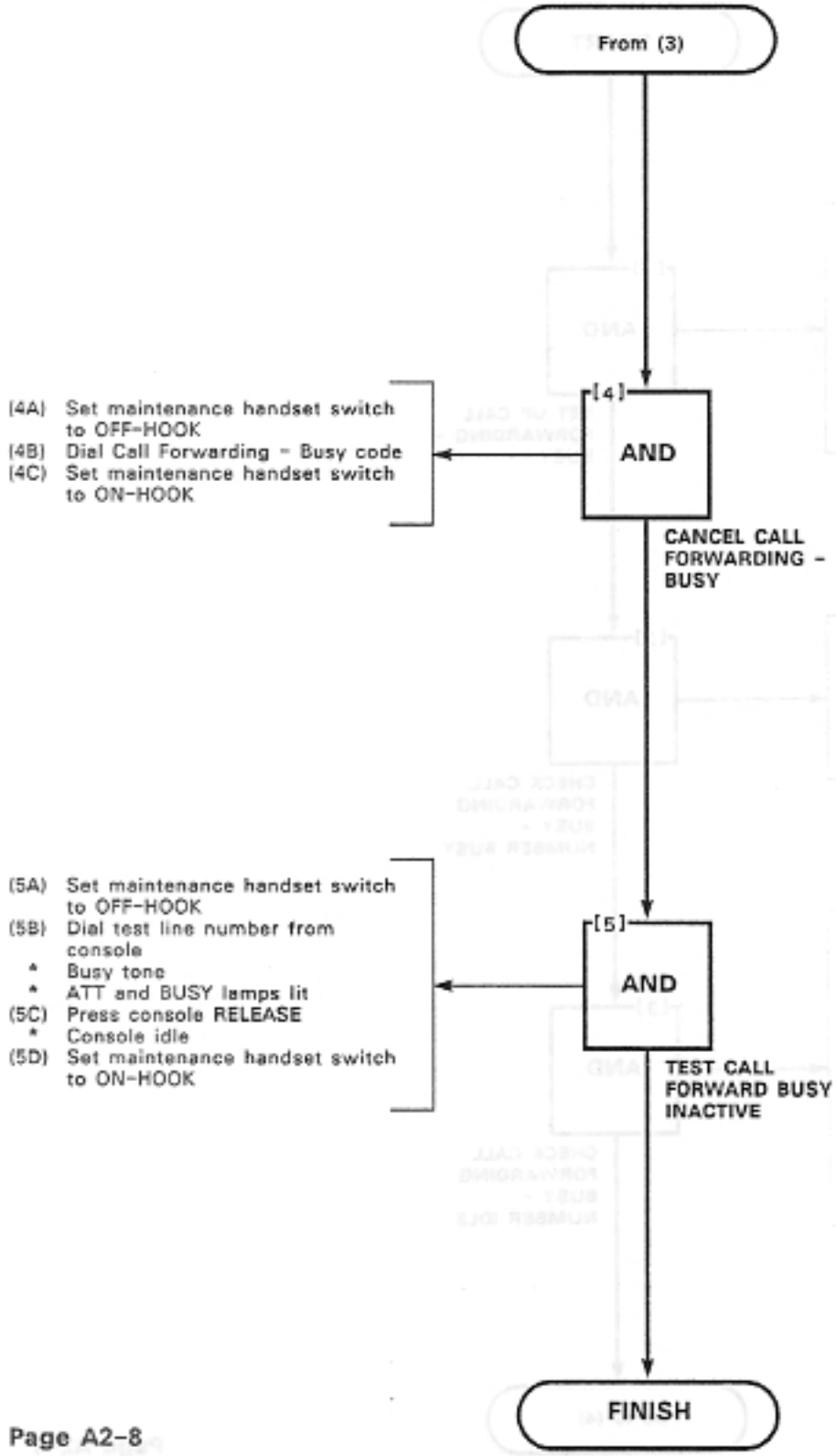
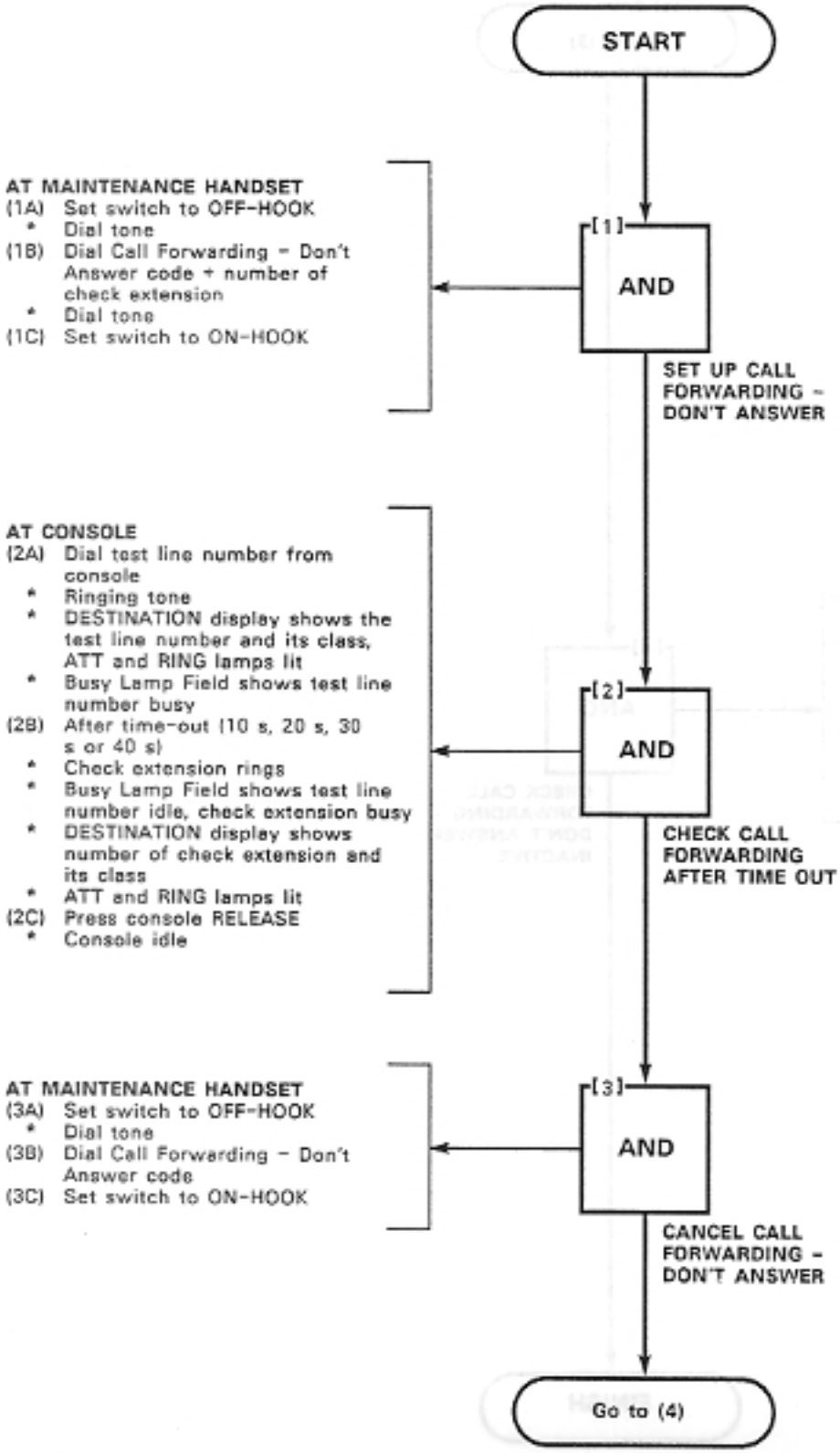


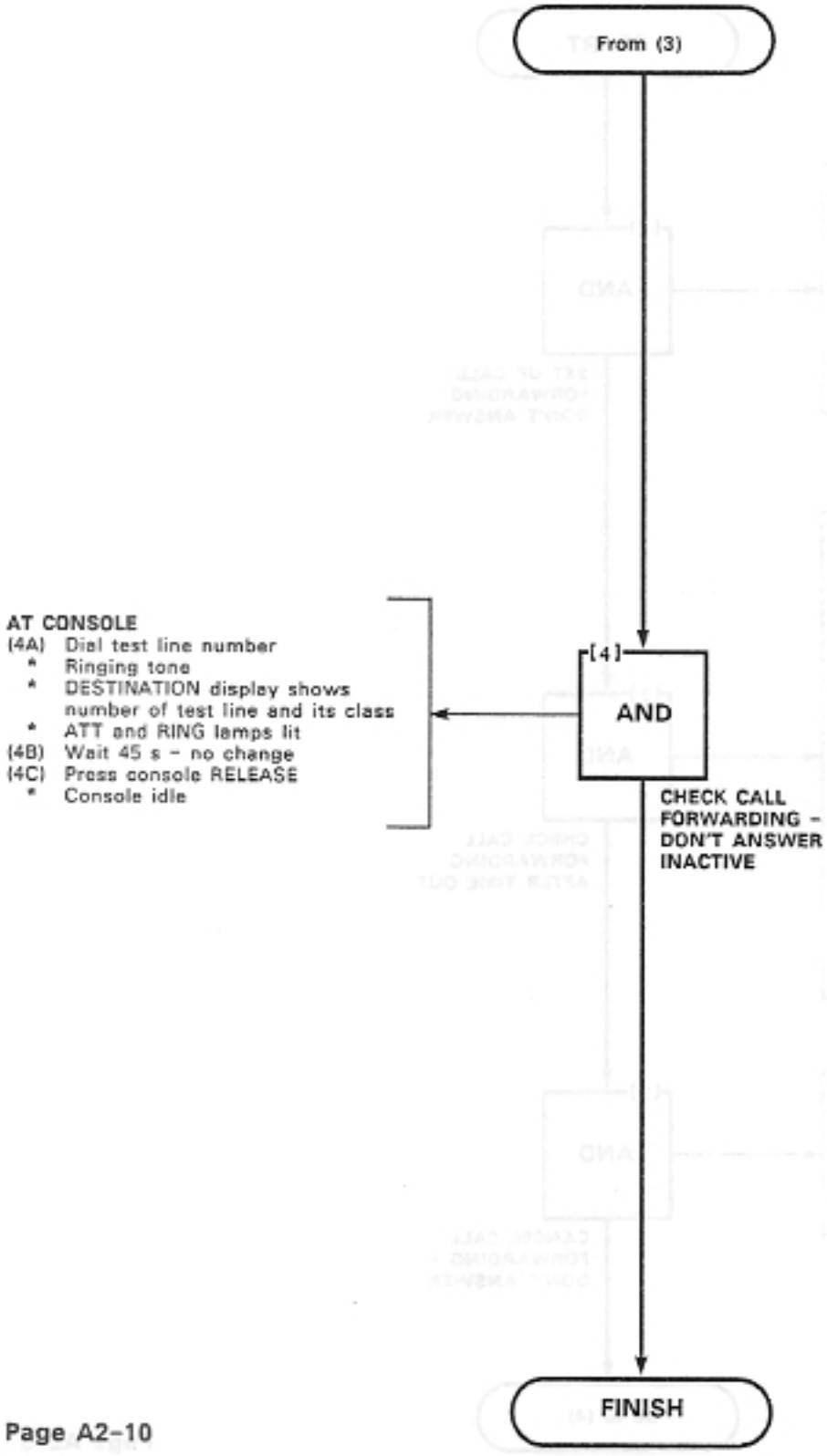
CALL FORWARDING - BUSY
MAP215- 203
Issue 1, September 1983
Sheet 2 of 2



CALL FORWARDING - DON'T ANSWER
MAP215-204
Issue 1, September 1983
Sheet 1 of 2



CALL FORWARDING - DON'T ANSWER
MAP215- 204
Issue 1, September 1983
Sheet 2 of 2



CALL FORWARDING – FOLLOW ME
MAP215-205
Issue 1, September 1983
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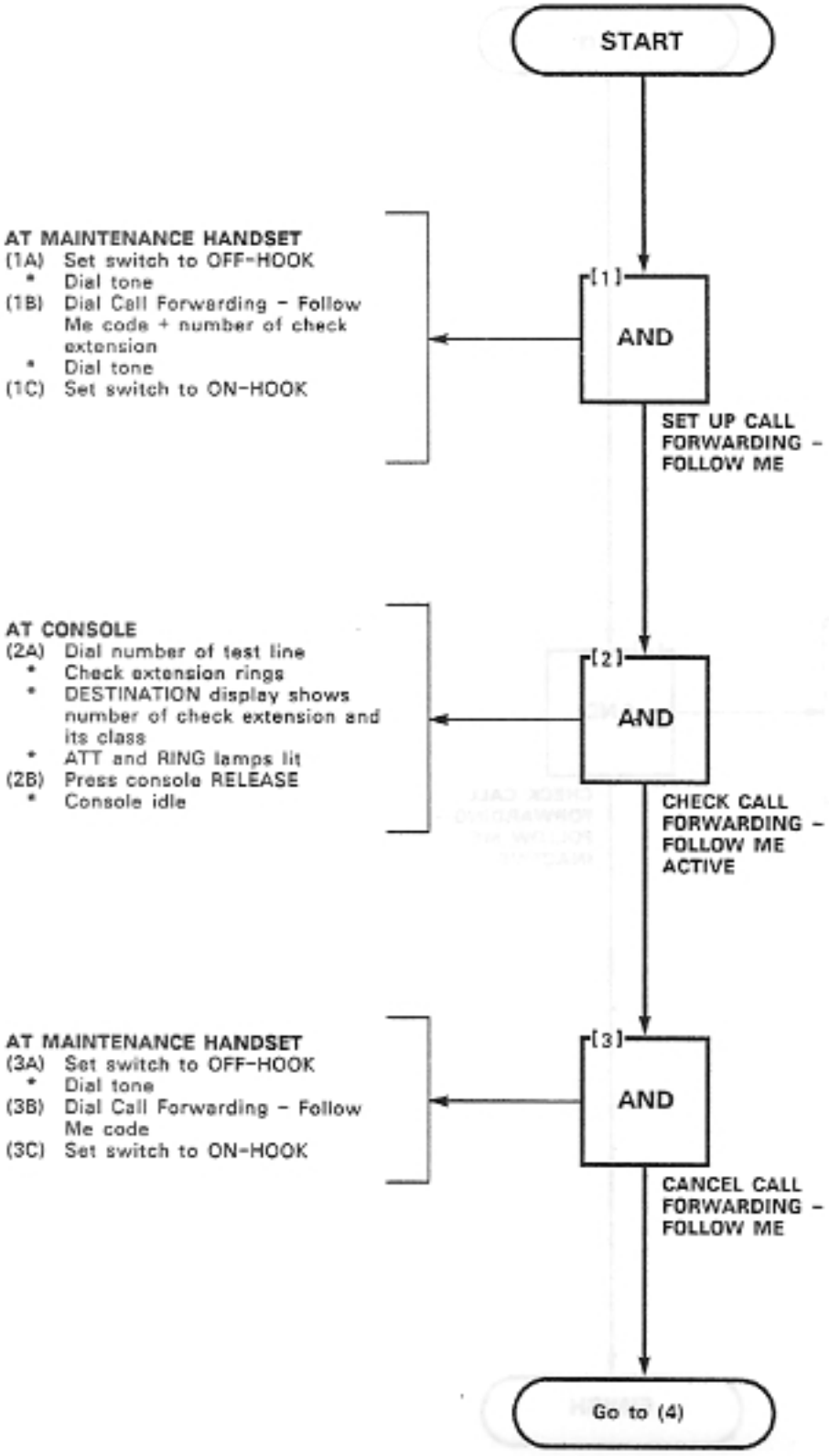

CALL FORWARDING – FOLLOW ME
MAP215– 205
Issue 1, September 1983
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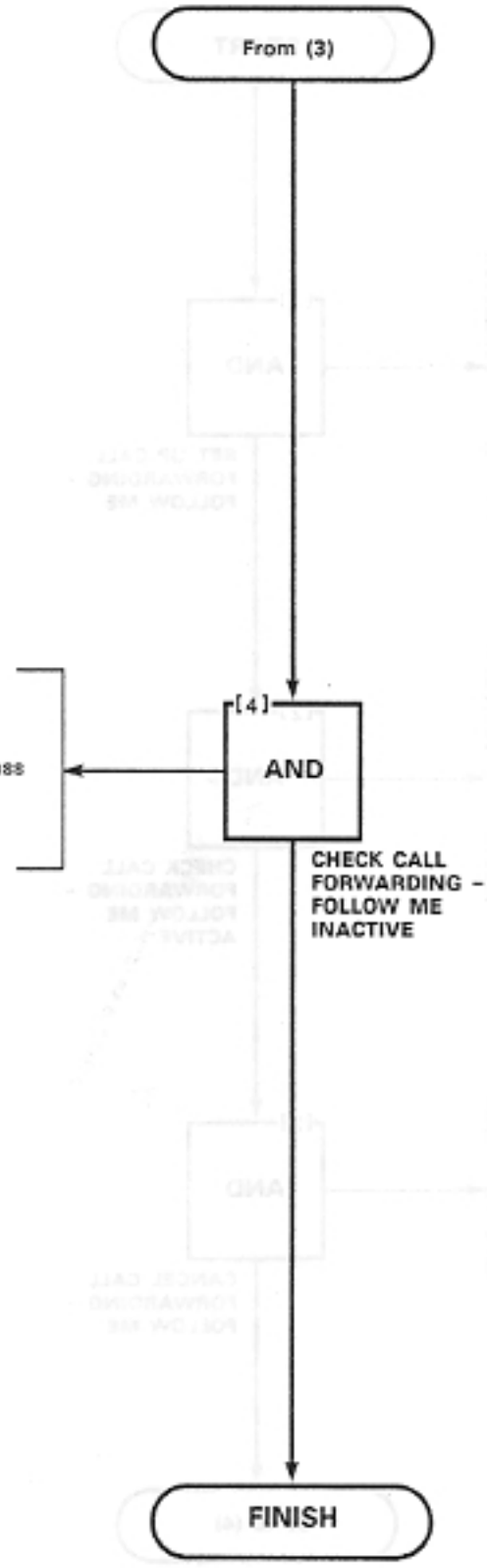
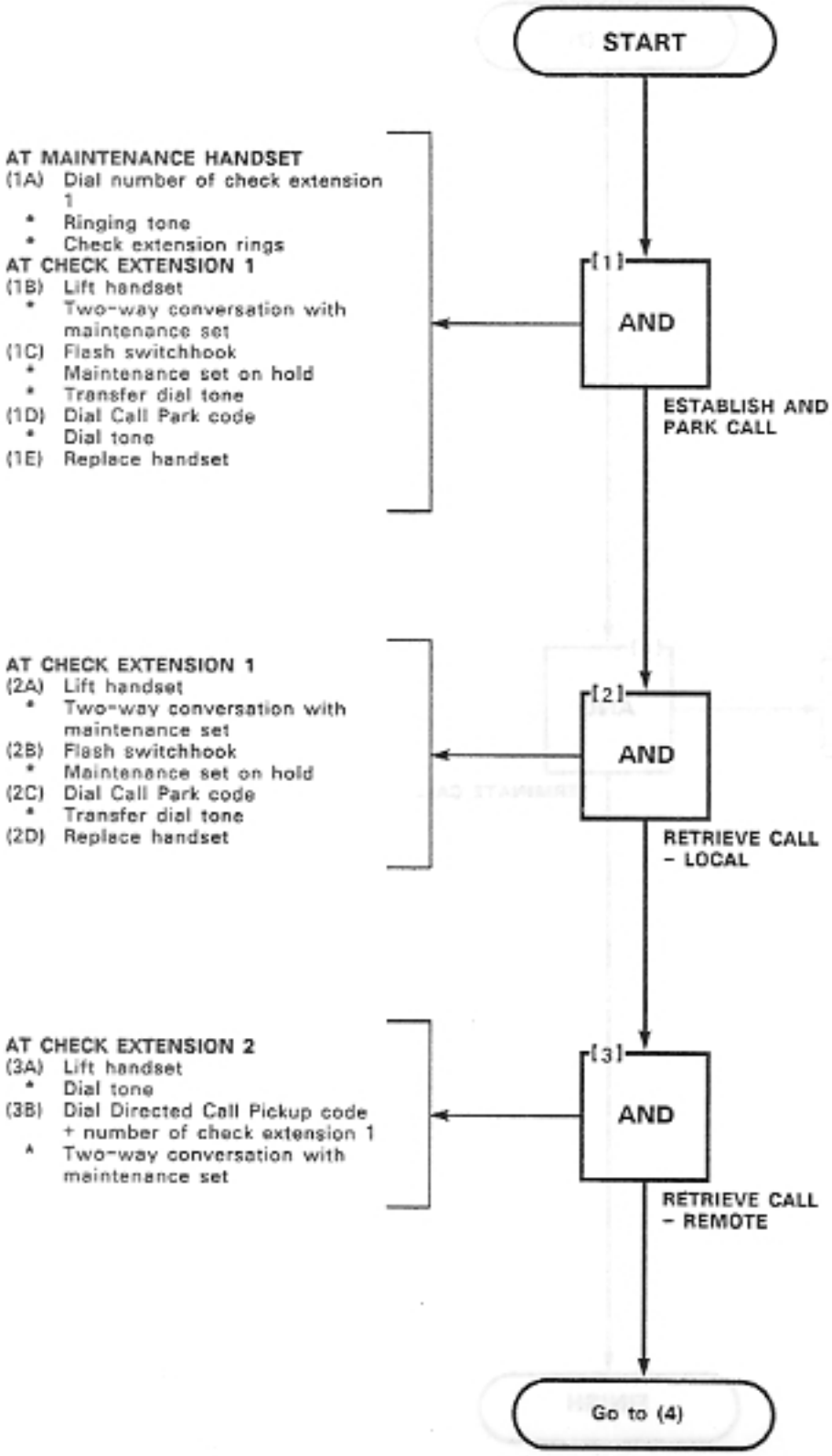
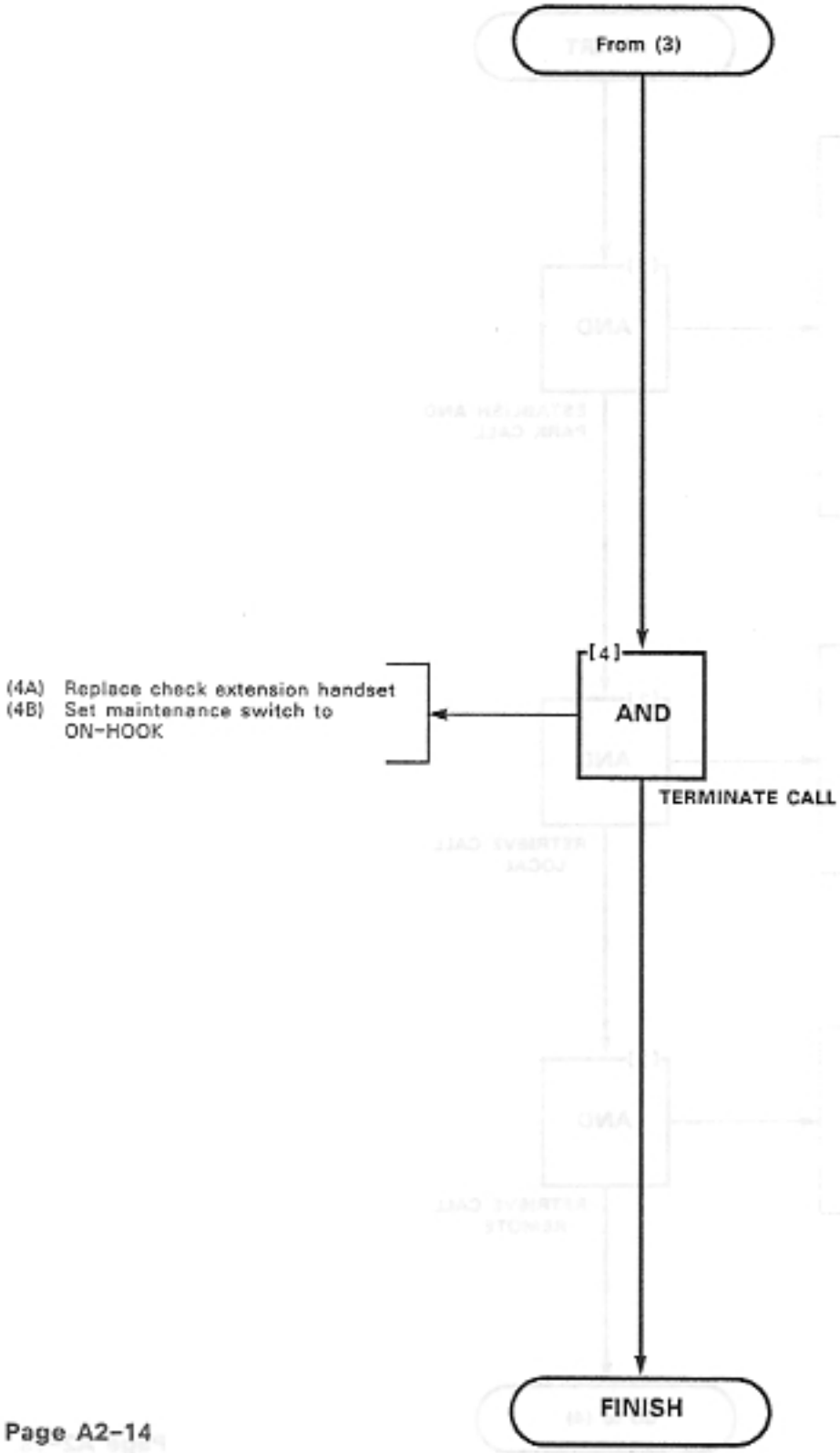


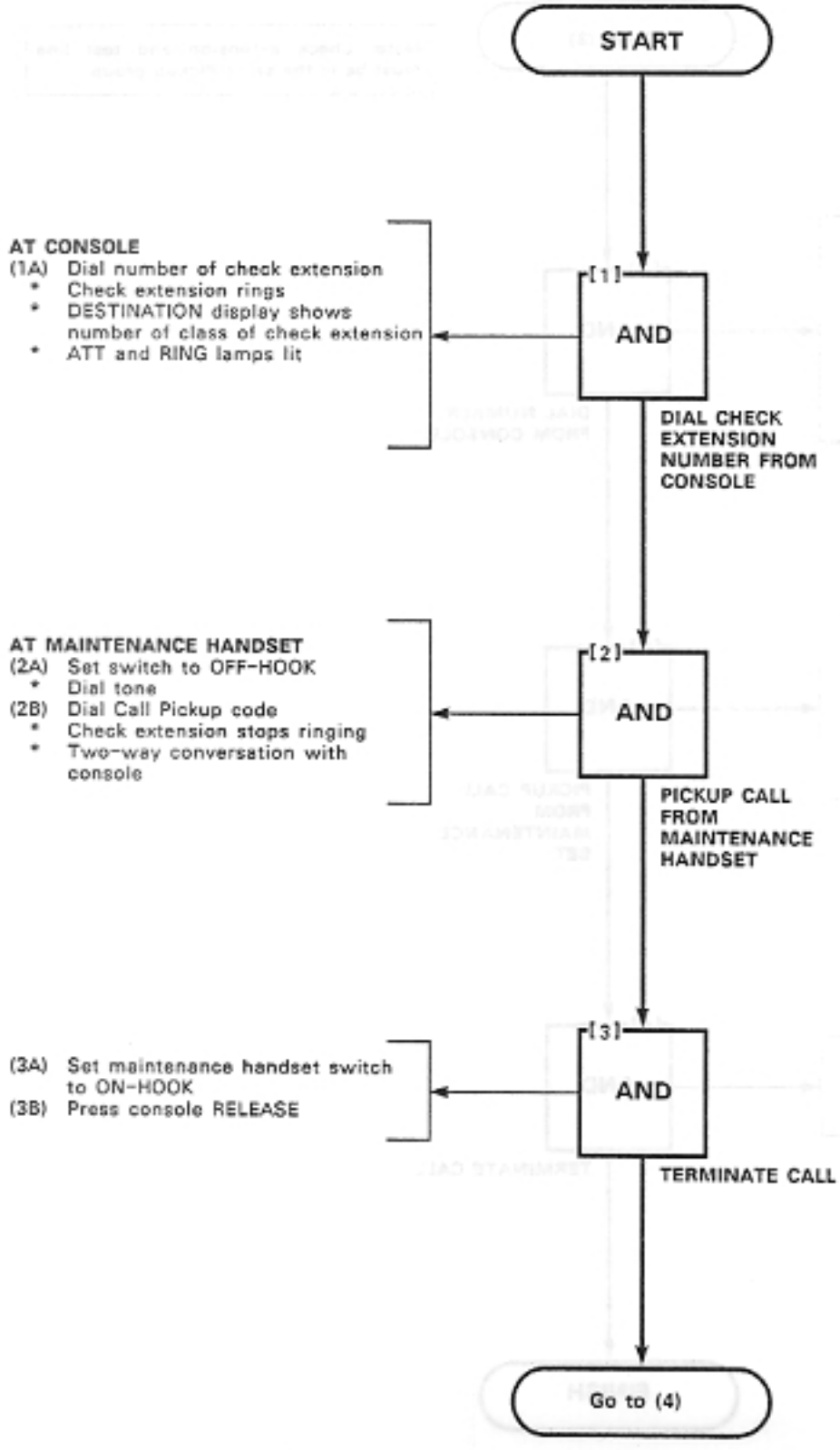
CALL PARK
MAP215-206
Issue 1, September 1983
Sheet 1 of 2



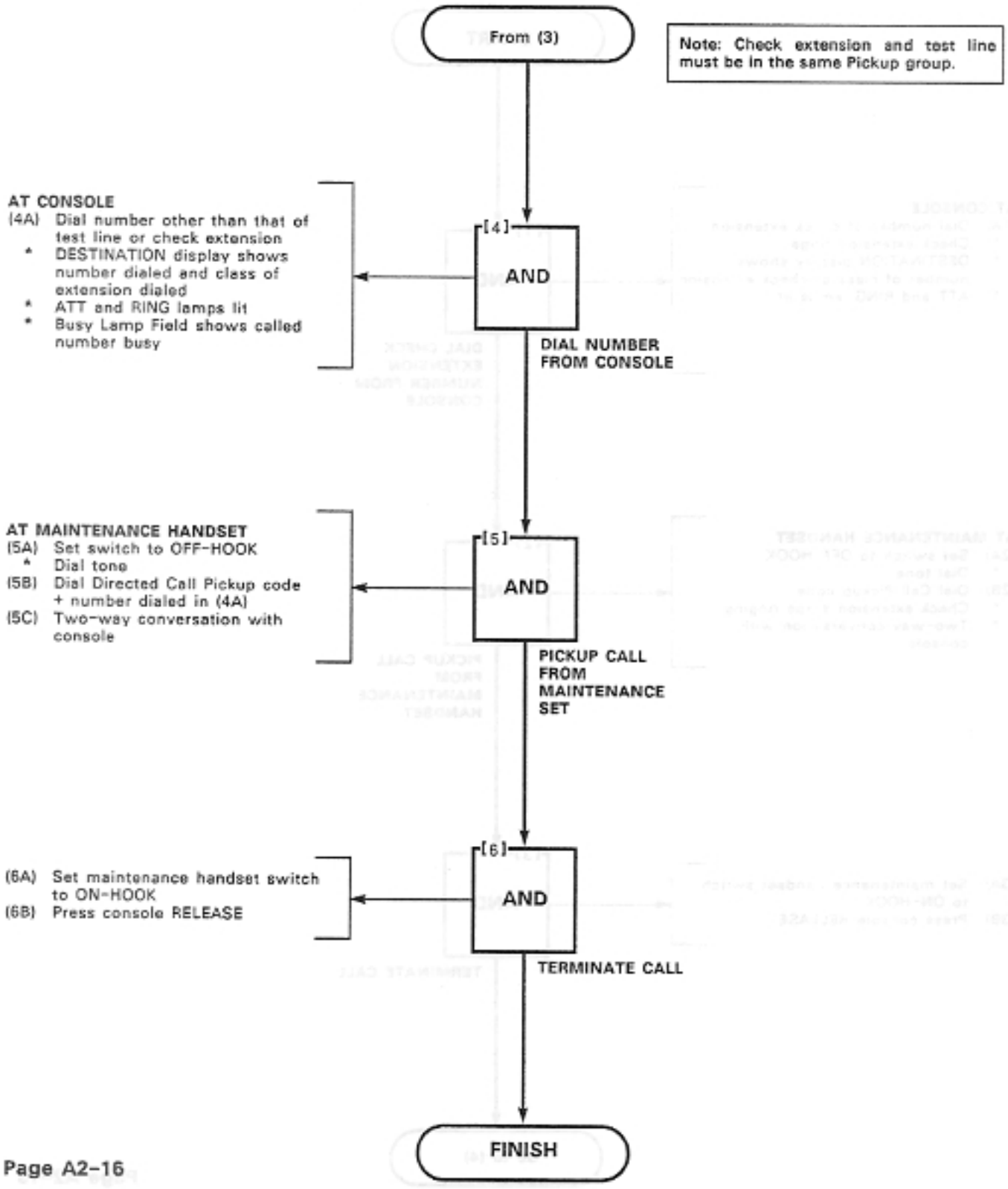
CALL PARK
MAP215- 206
Issue 1, September 1983
Sheet 2 of 2



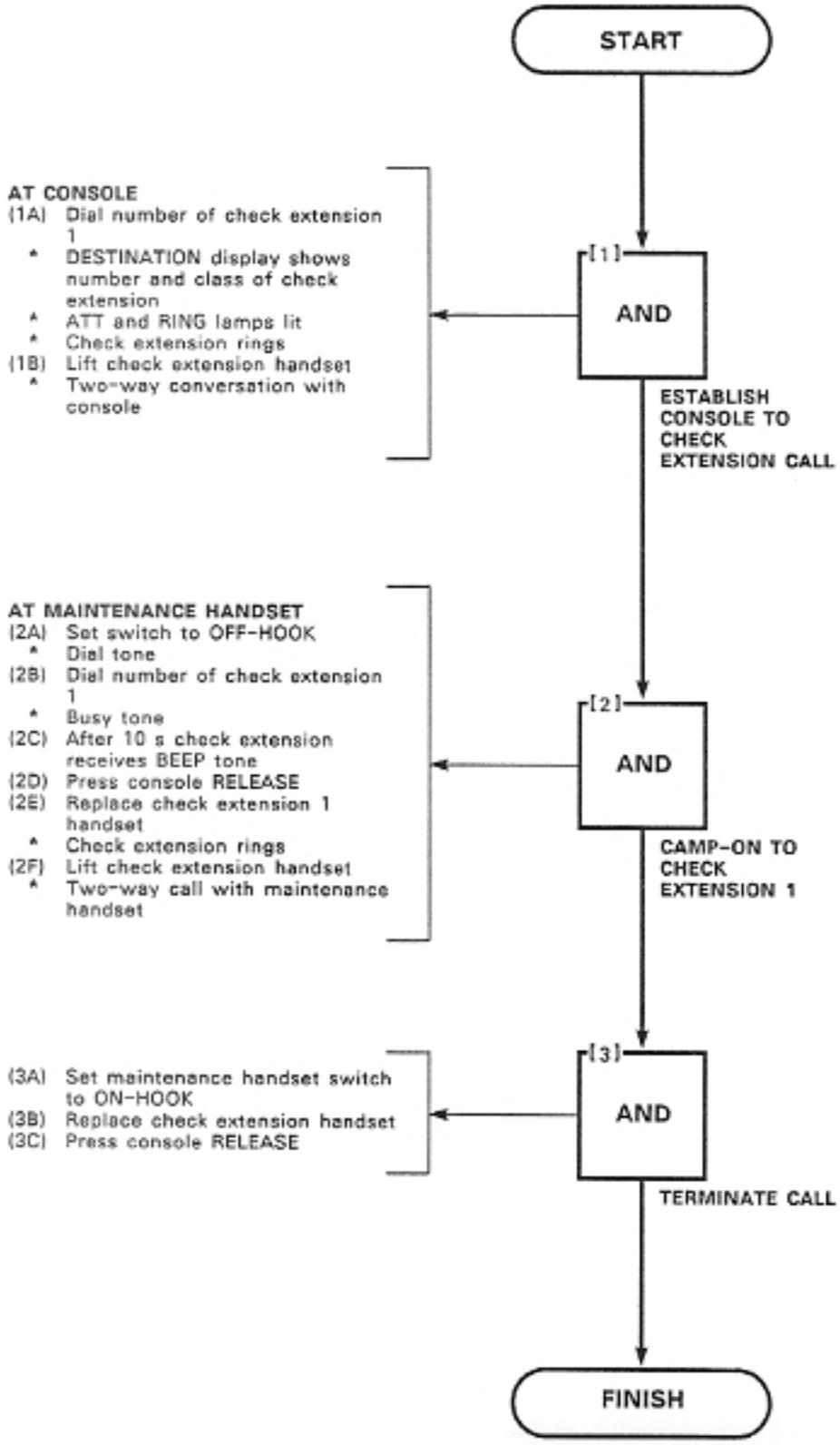
CALL PICKUP
MAP215-207
Issue 1, September 1993
Sheet 1 of 2



CALL PICKUP
MAP215- 207
Issue 1, September 1983
Sheet 2 of 2

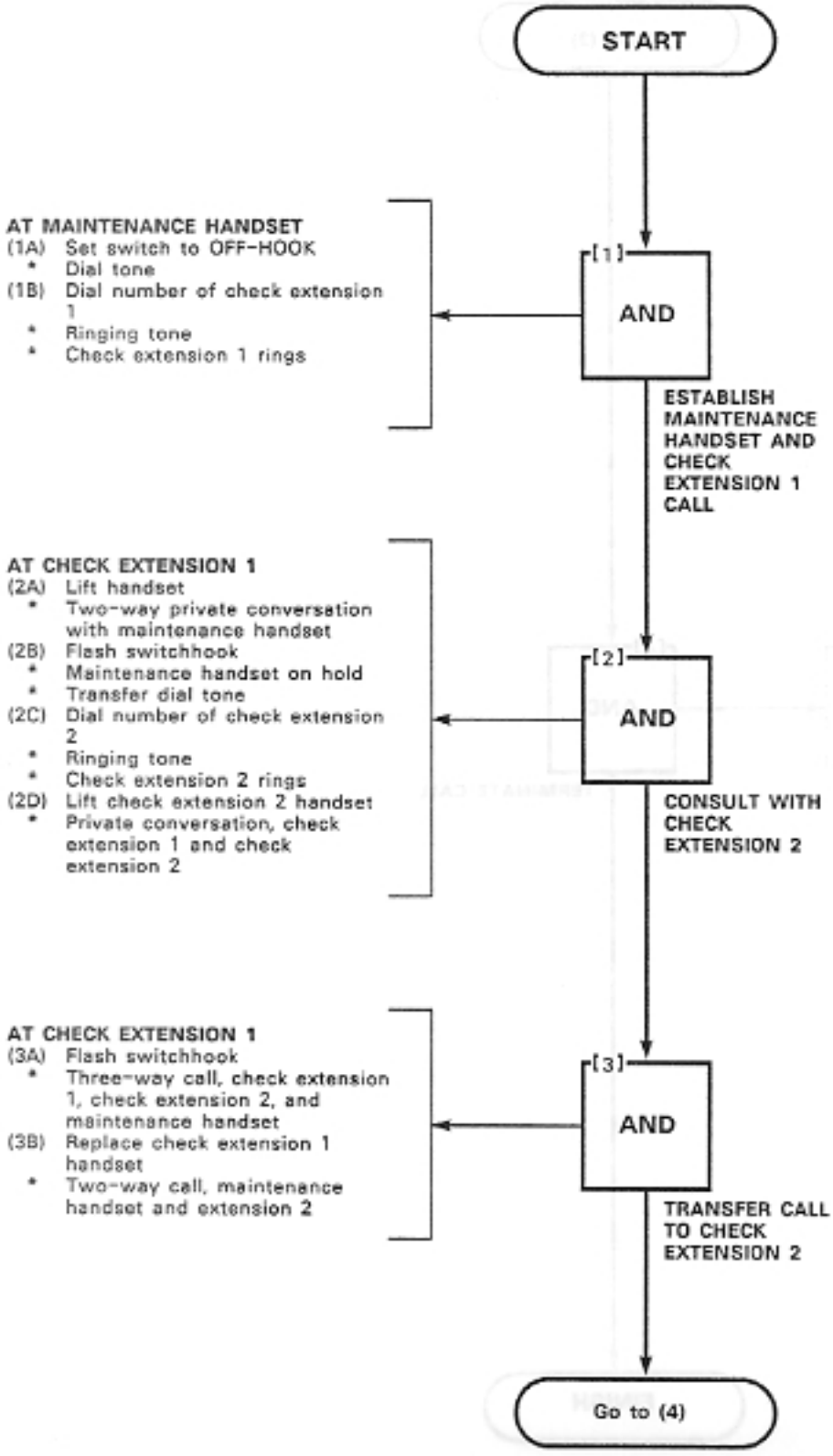


CAMP-ON
MAP215-208
Issue 1, September 1983
Sheet 1 of 1



START
AND
AND
AND
FINISH

CONSULTATION HOLD/TRANSFER/ADD-ON
MAP215-209
Issue 1, September 1983
Sheet 1 of 2



CONSULTATION HOLD/TRANSFER/ADD-ON
MAP200- 209
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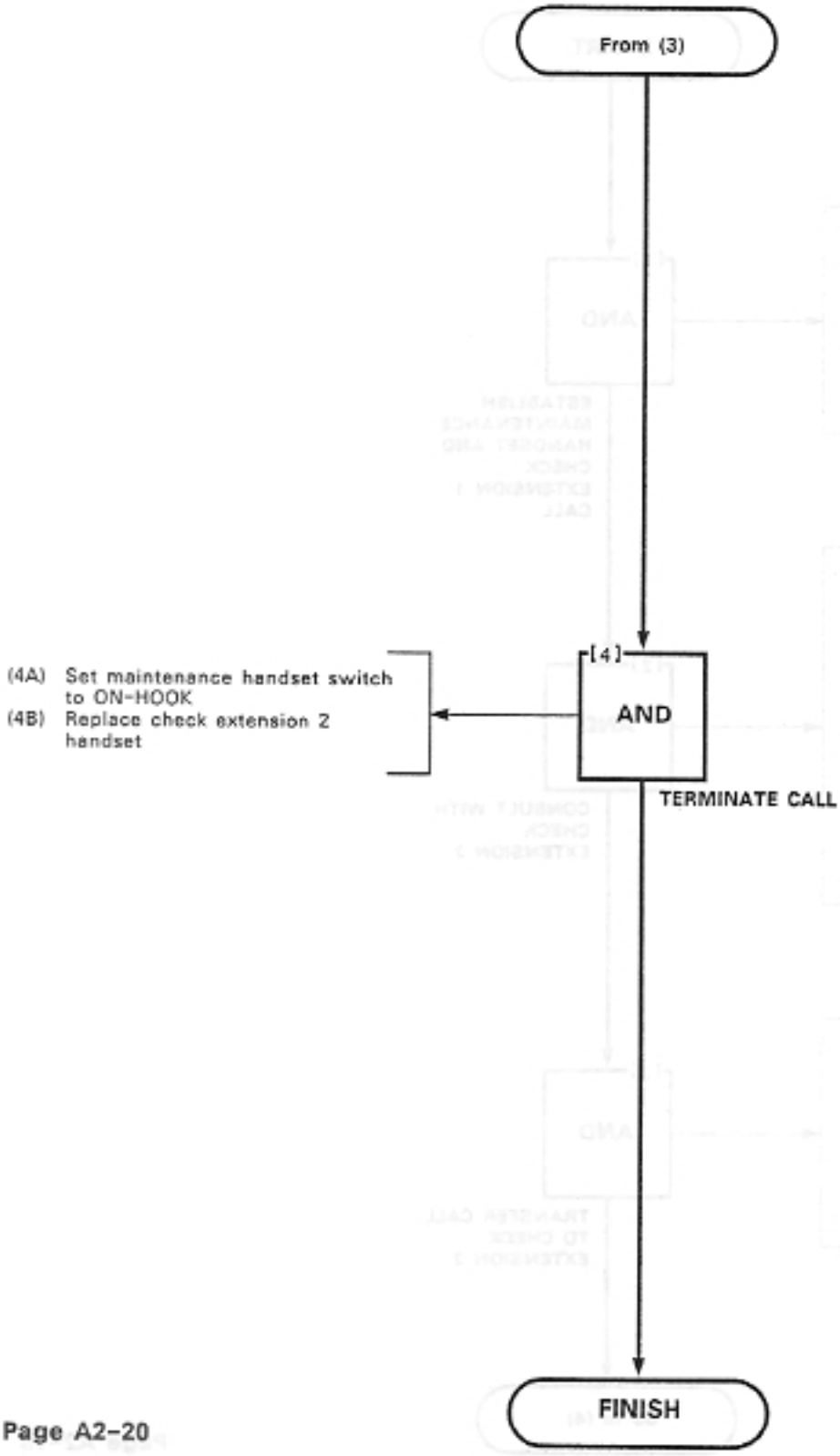
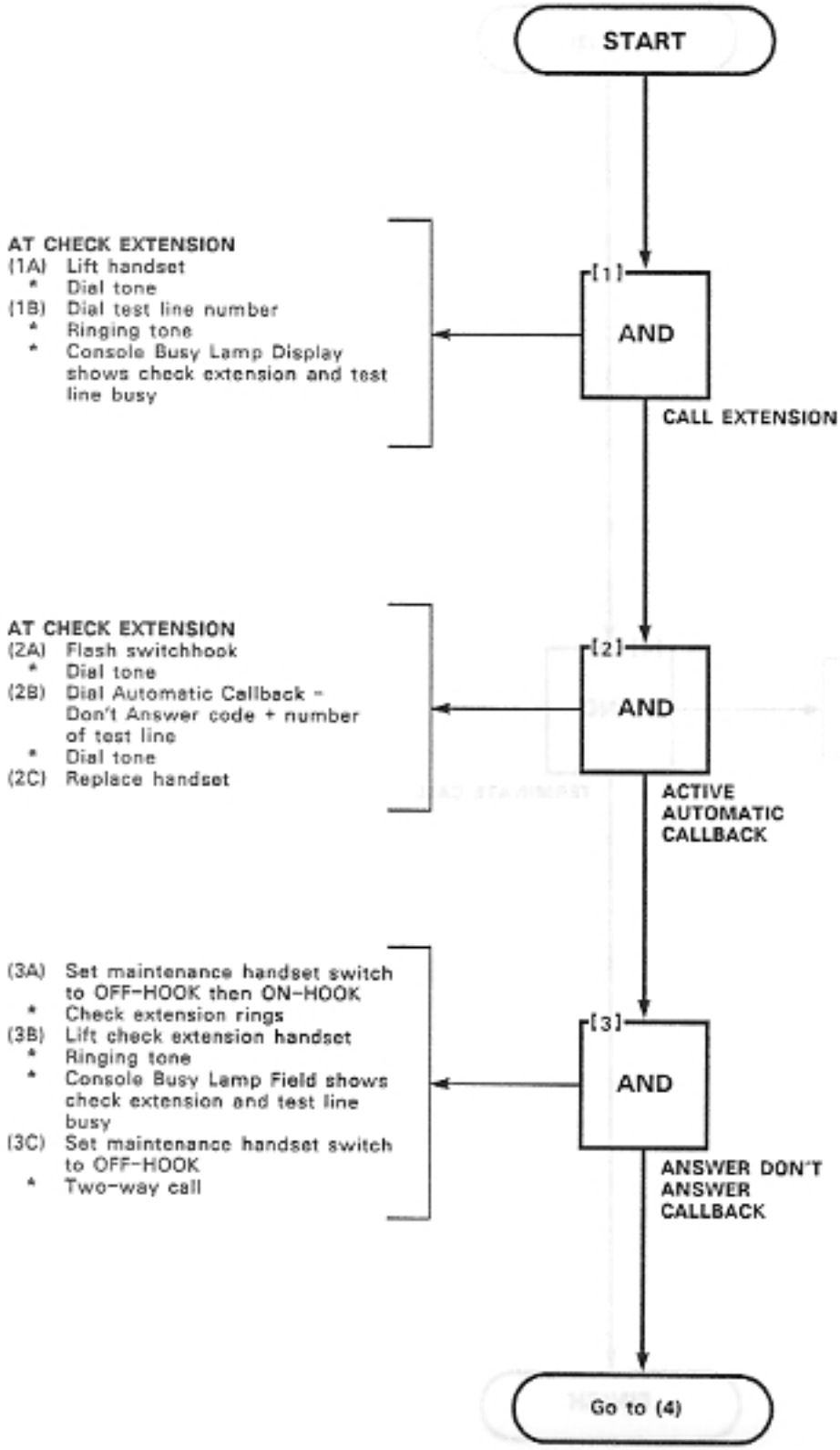
Sheet 2 of 2



AUTOMATIC CALLBACK – DON'T ANSWER
MAP215-210
Issue 1, September 1983
Sheet 1 of 2



AUTOMATIC CALLBACK – DON'T ANSWER
MAP200– 210
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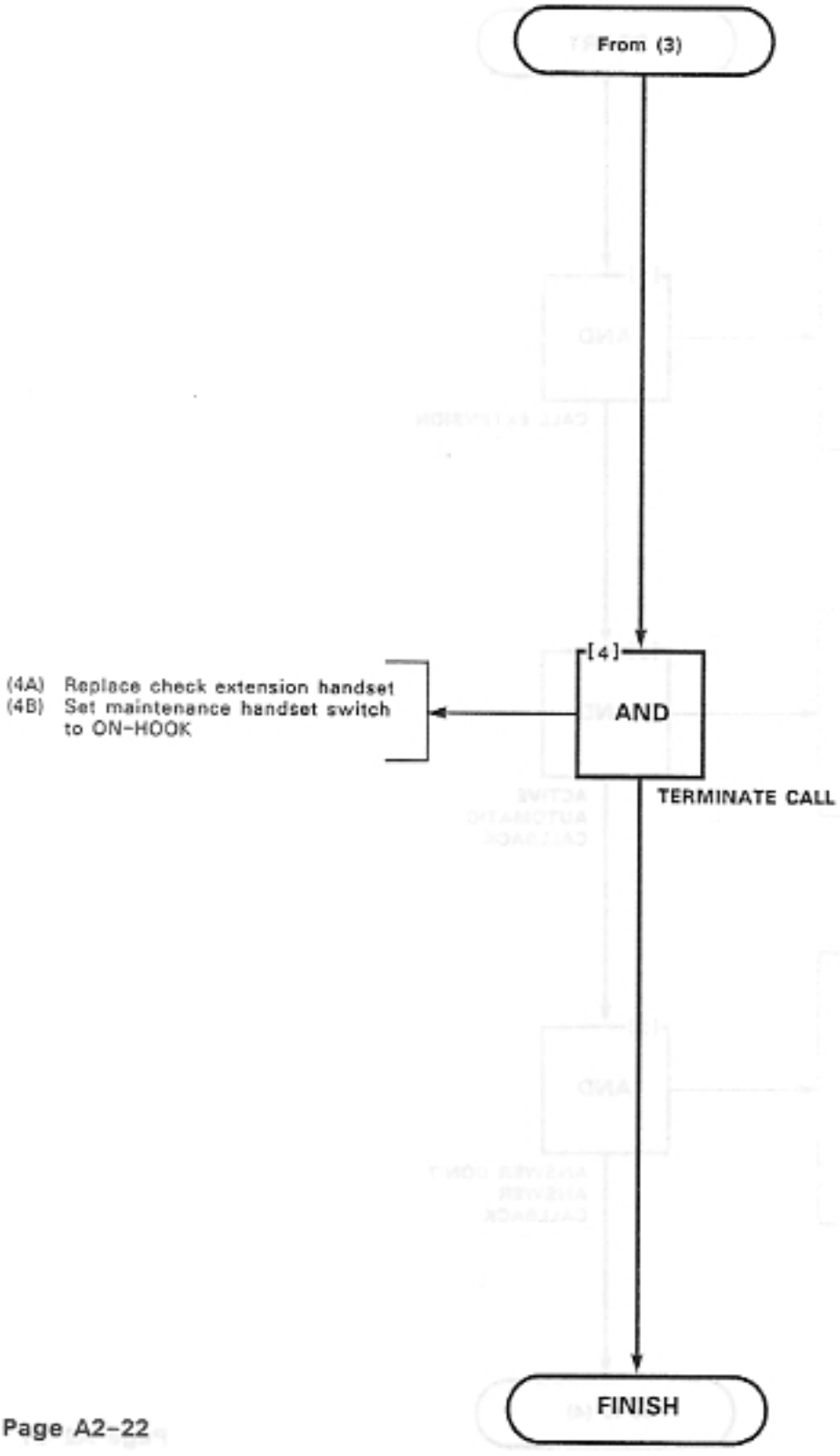
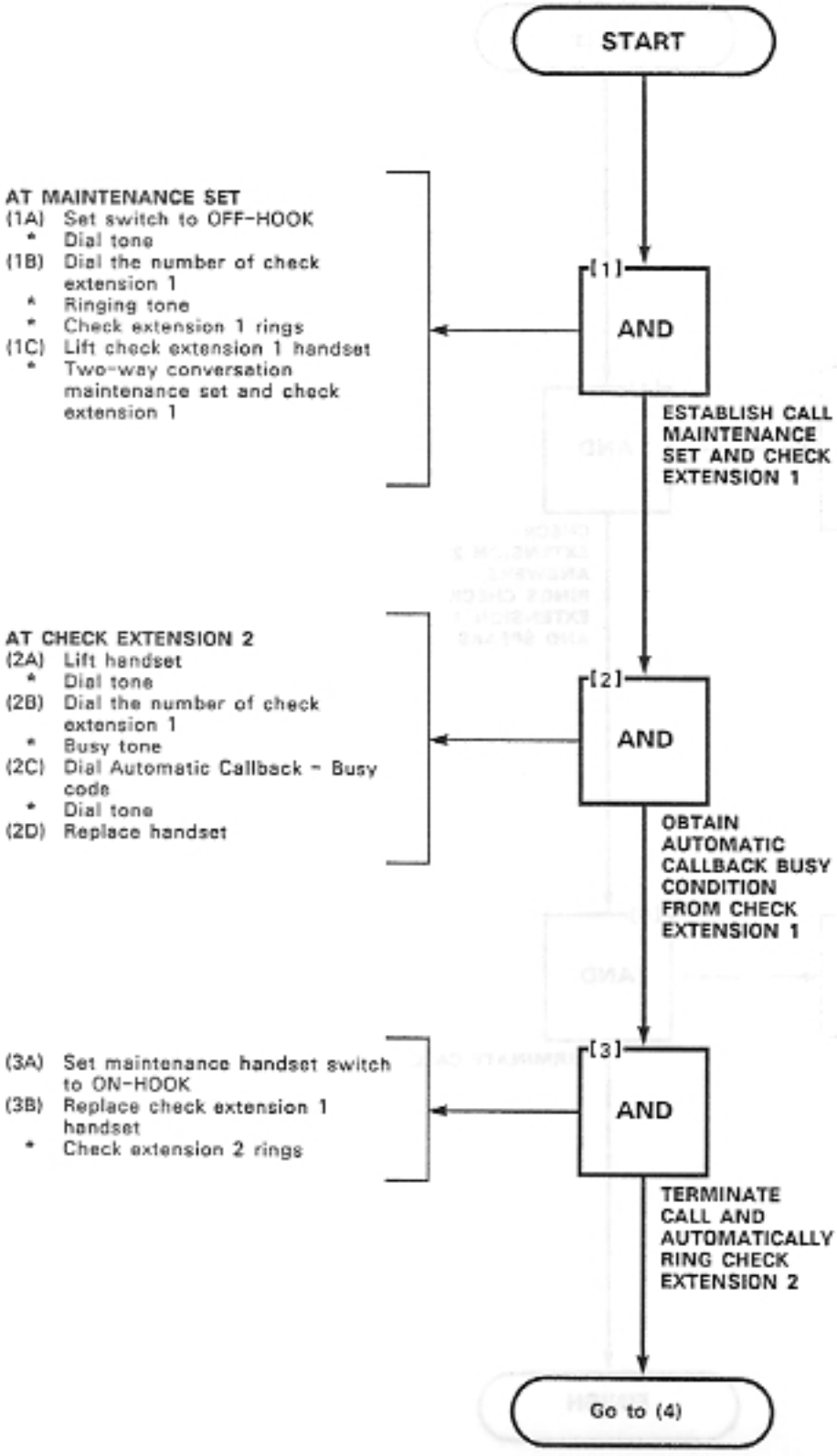
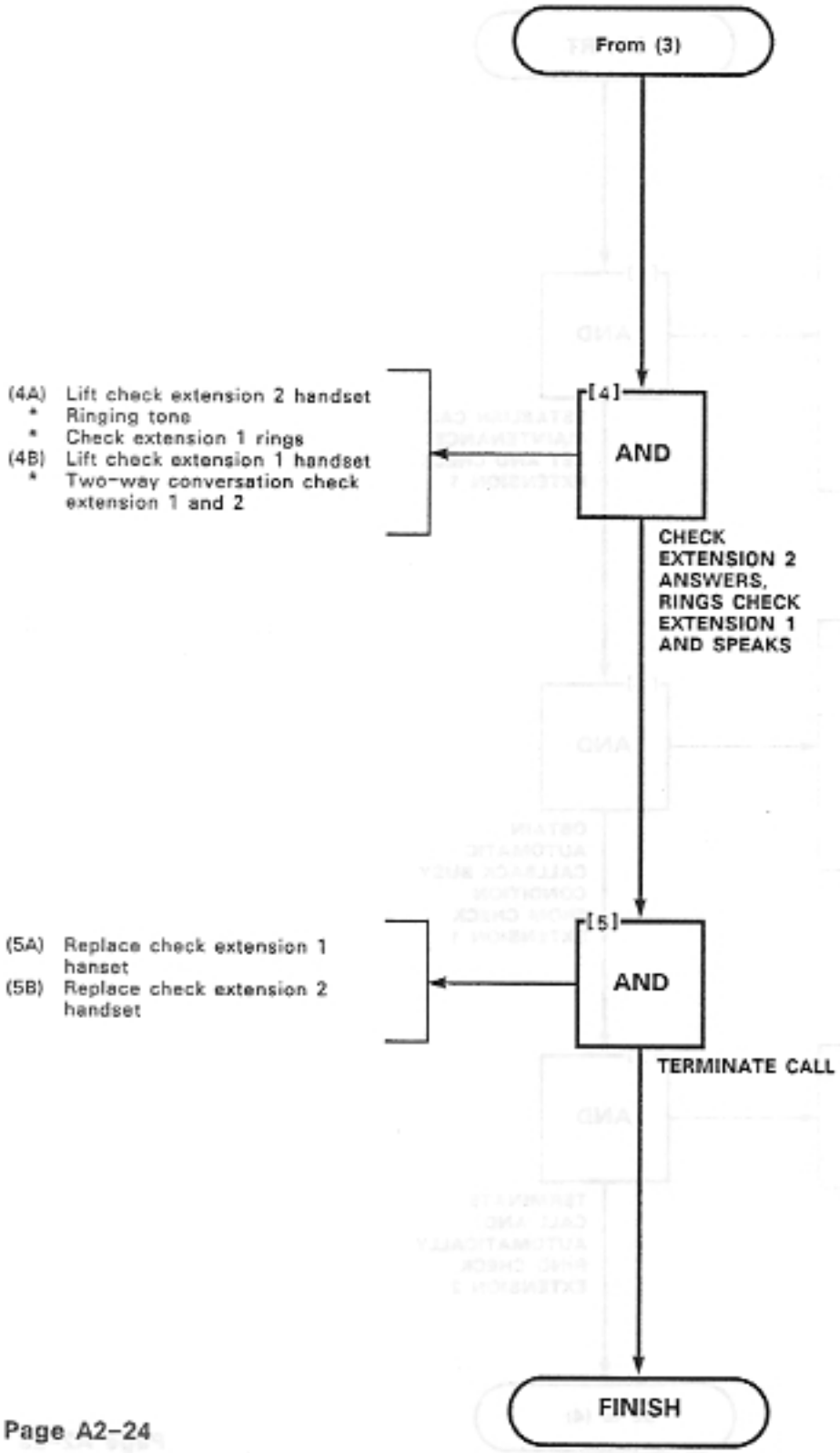
Sheet 2 of 2



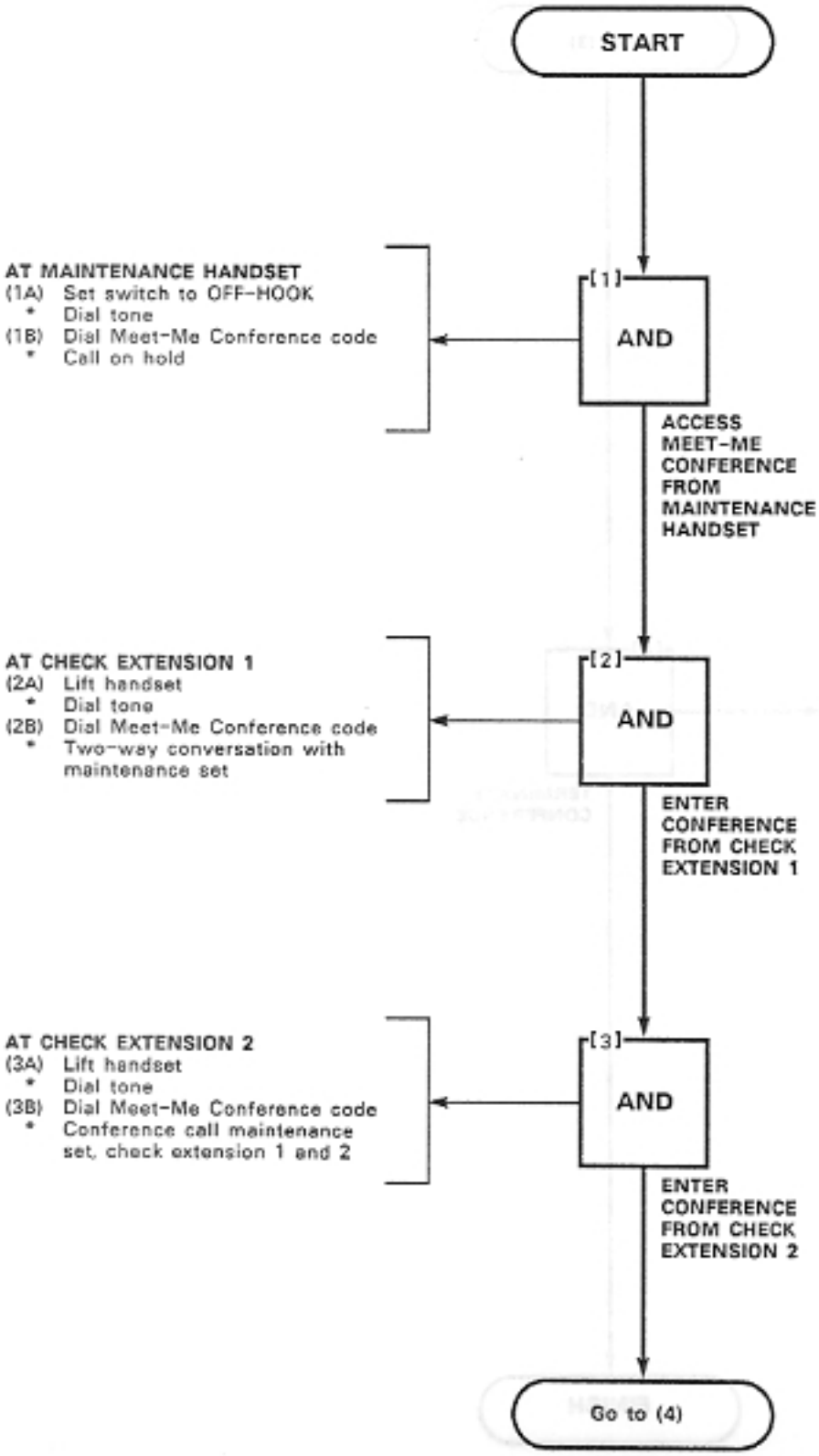
AUTOMATIC CALLBACK - BUSY
MAP215-211
Issue 1, September 1983
Sheet 1 of 2



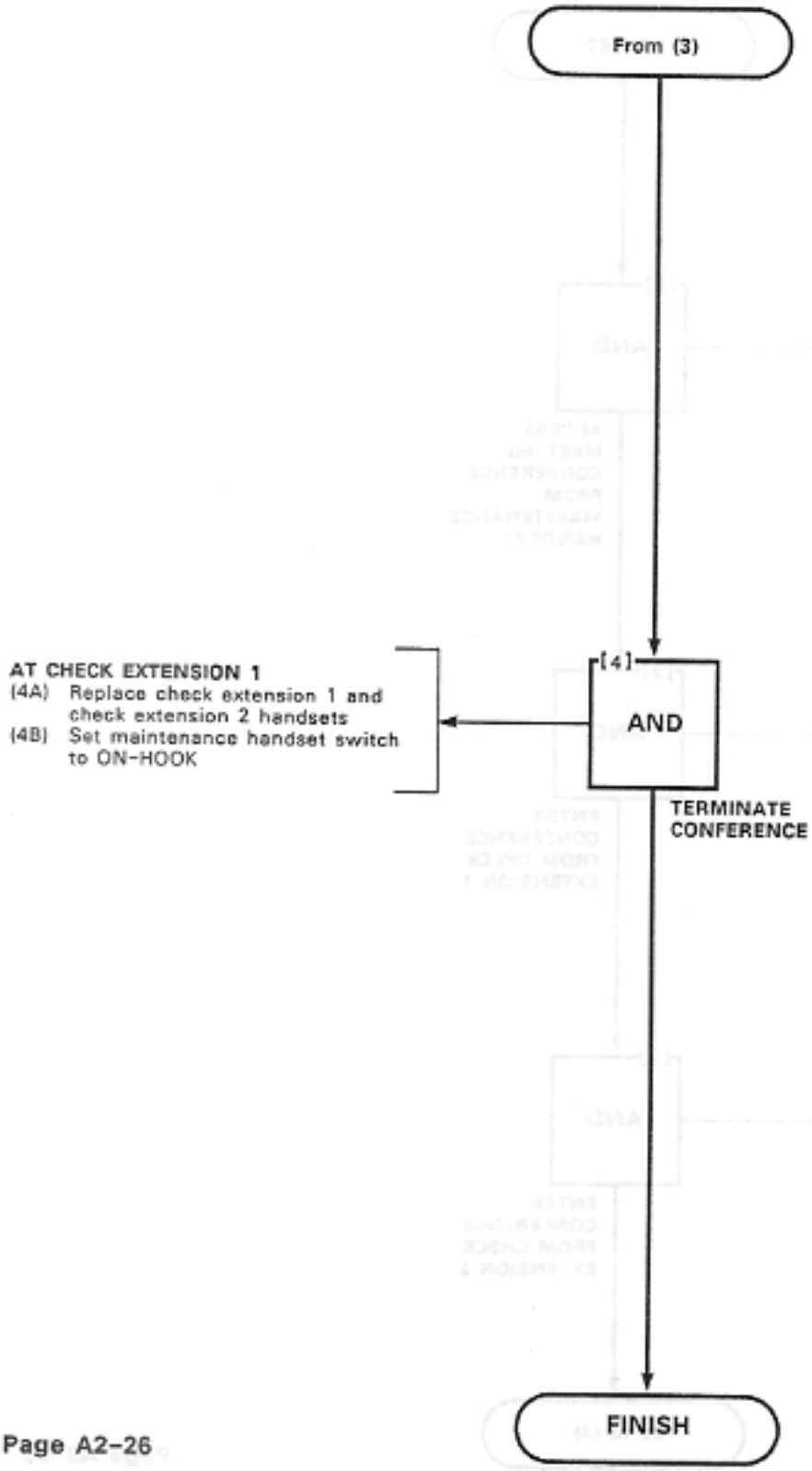
AUTOMATIC CALLBACK – BUSY
MAP215- 211
Issue 1, September 1983
Sheet 2 of 2



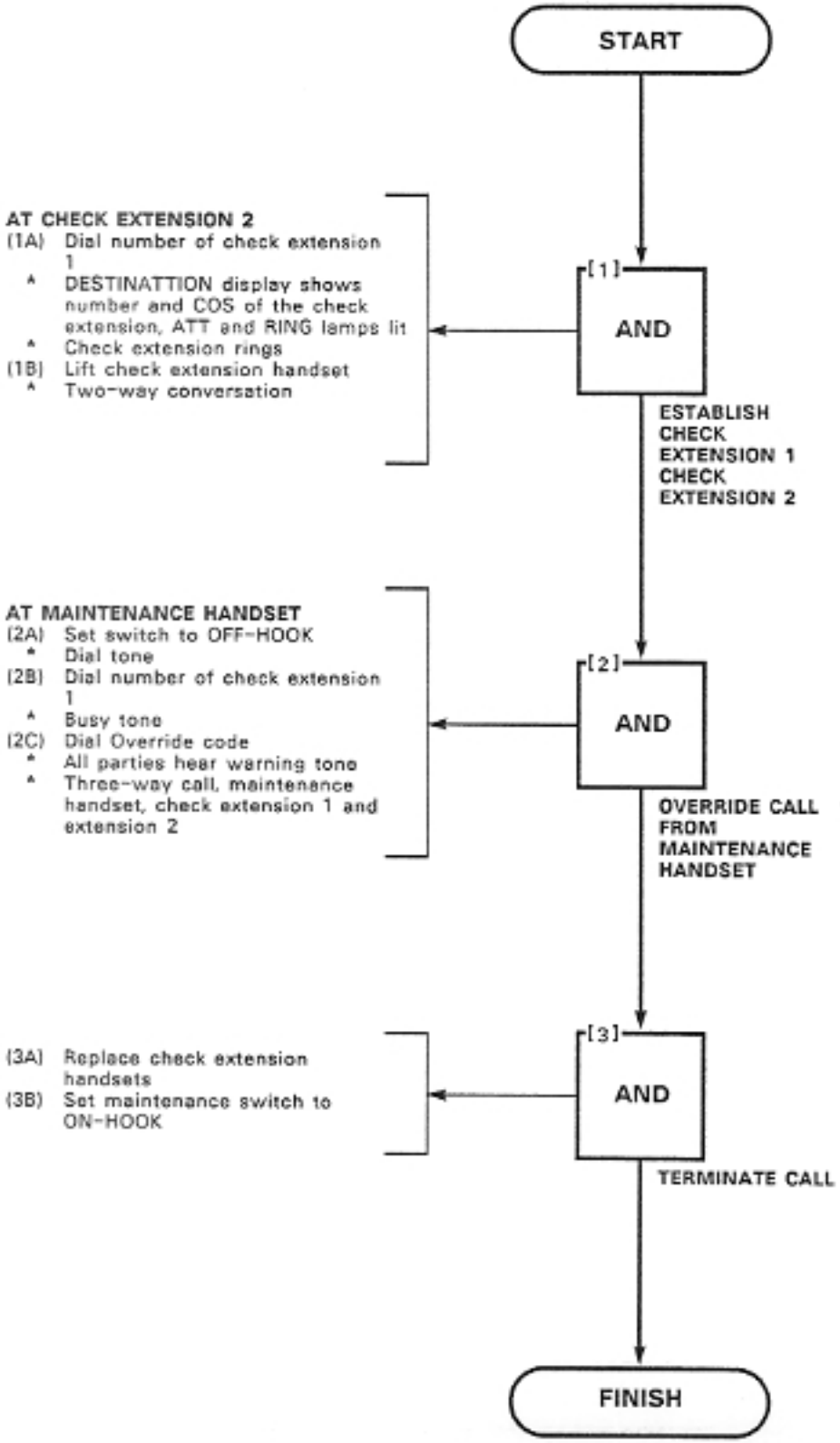
MEET-ME CONFERENCE
MAP215-212
Issue 1, September 1983
Sheet 1 of 2



MEET-ME CONFERENCE
MAP215- 212
Issue 1, September 1983
Sheet 2 of 2

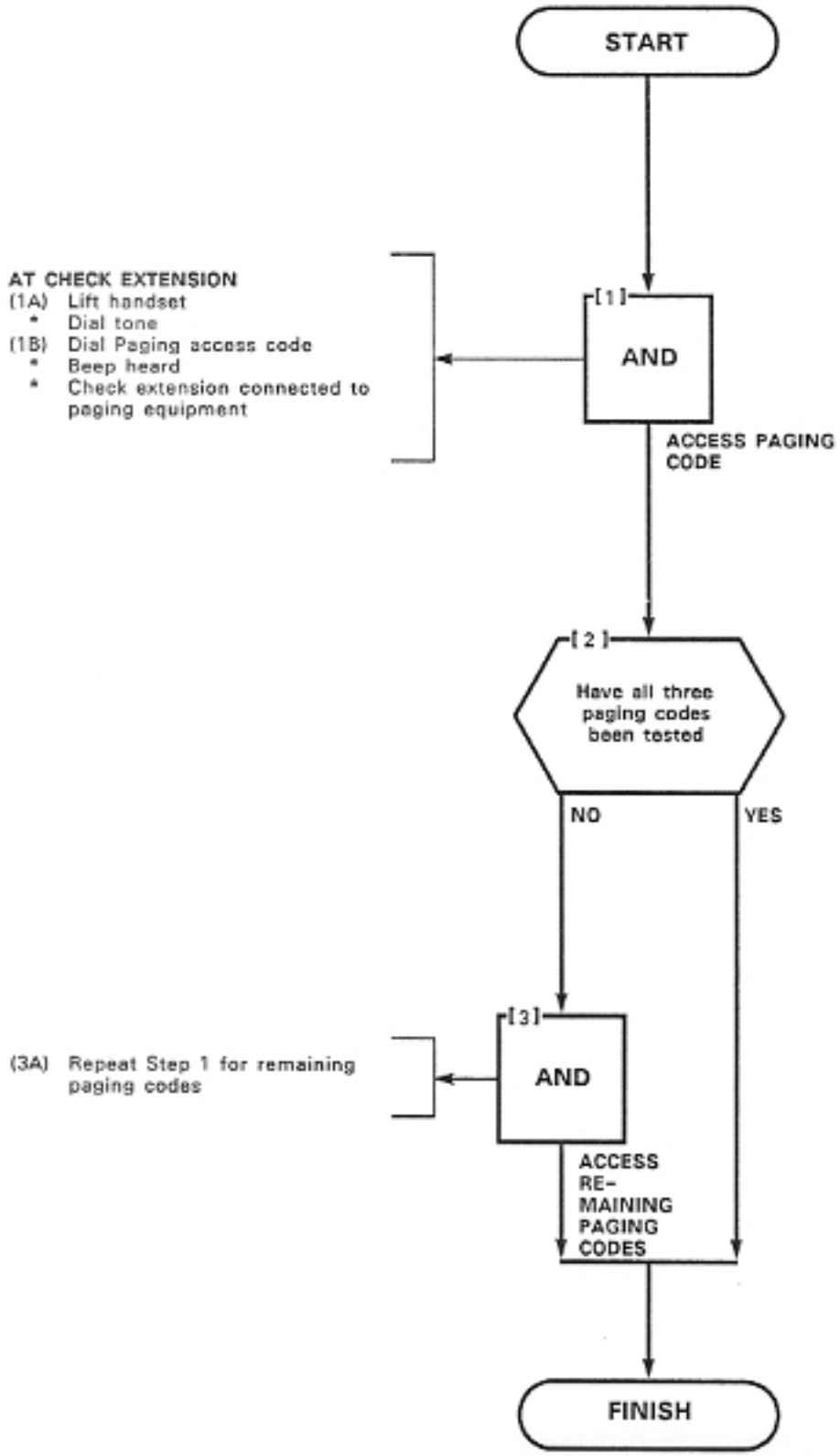


EXECUTIVE BUSY OVERRIDE
MAP215-213
Issue 1, September 1983
Sheet 1 of 1



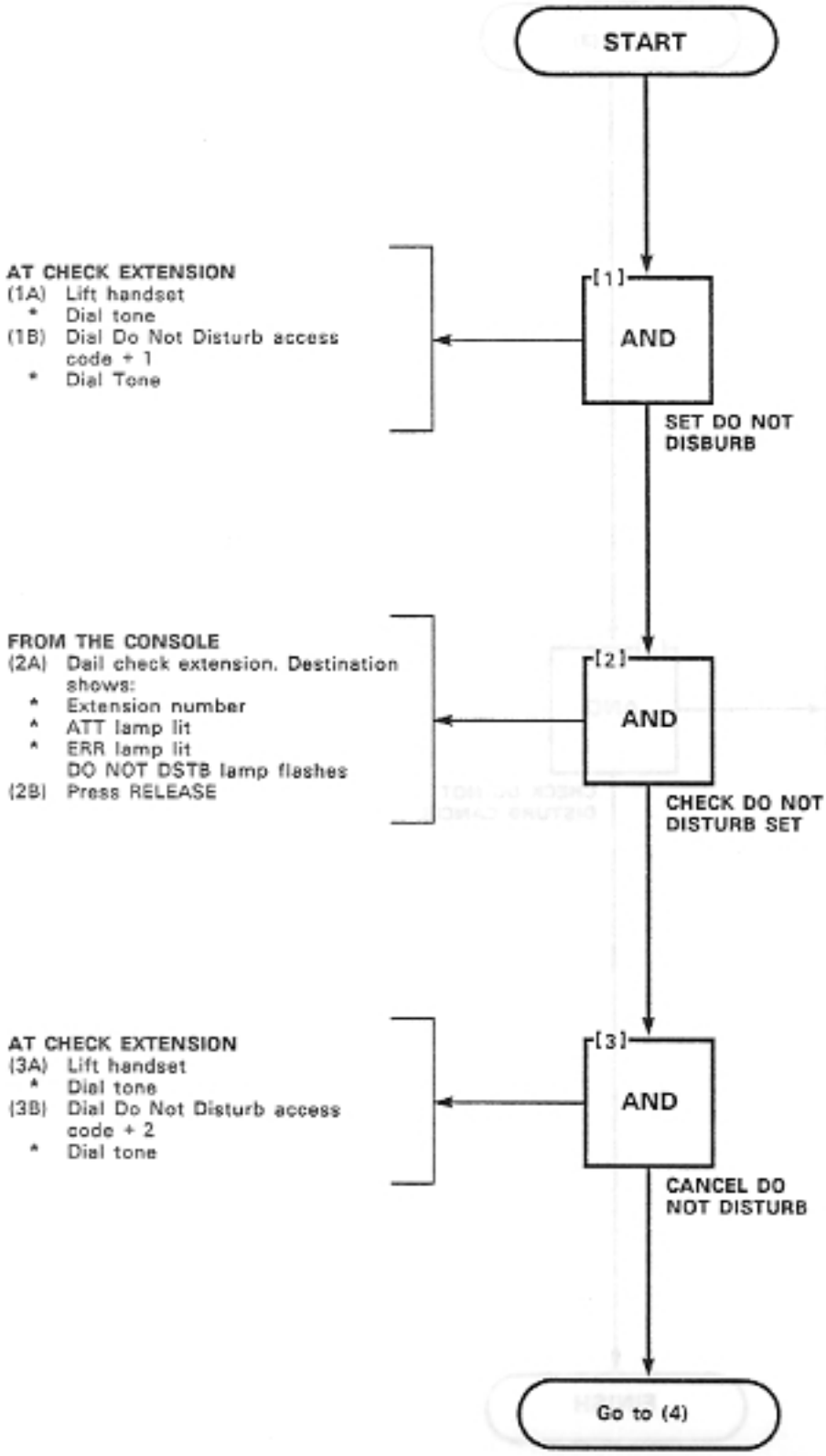
START
AND
AND
AND
FINISH

PAGING
MAP215-214
Issue 1, September 1983
Sheet 1 of 1

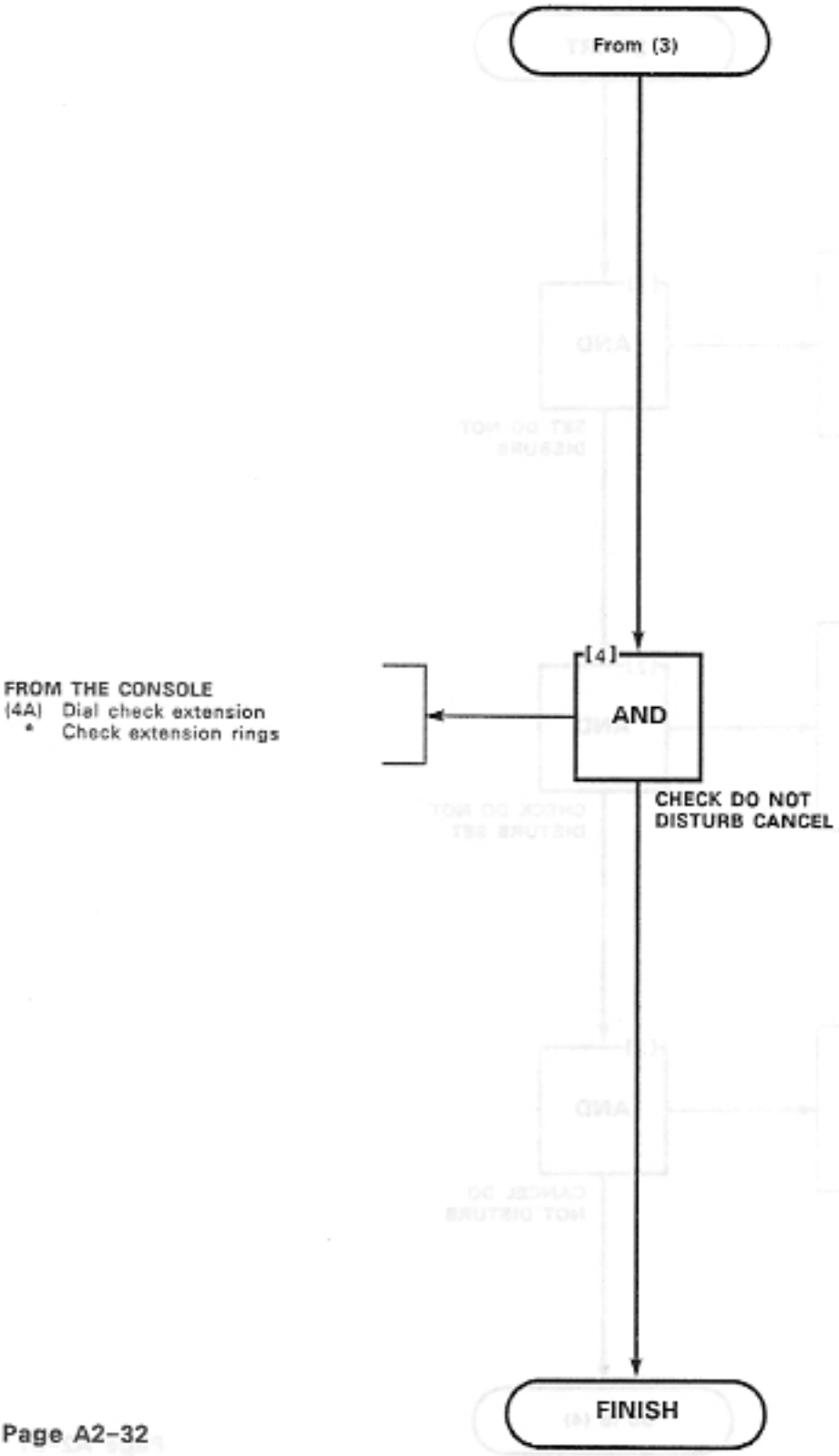


START
AND
ACCESS PADING CODE
AND

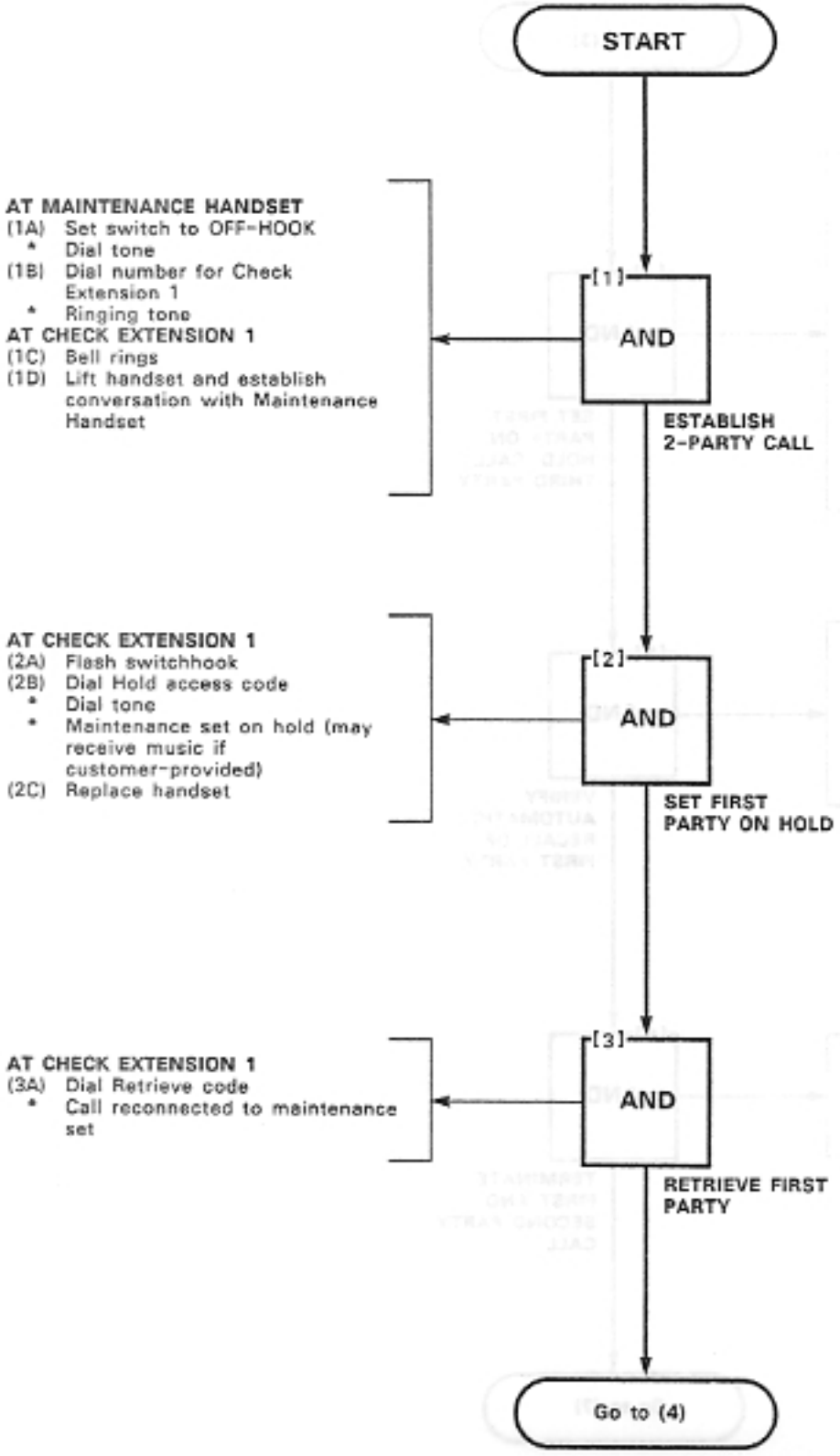
DO NOT DISTURB
MAP215-215
Issue 1, September 1983
Sheet 1 of 2



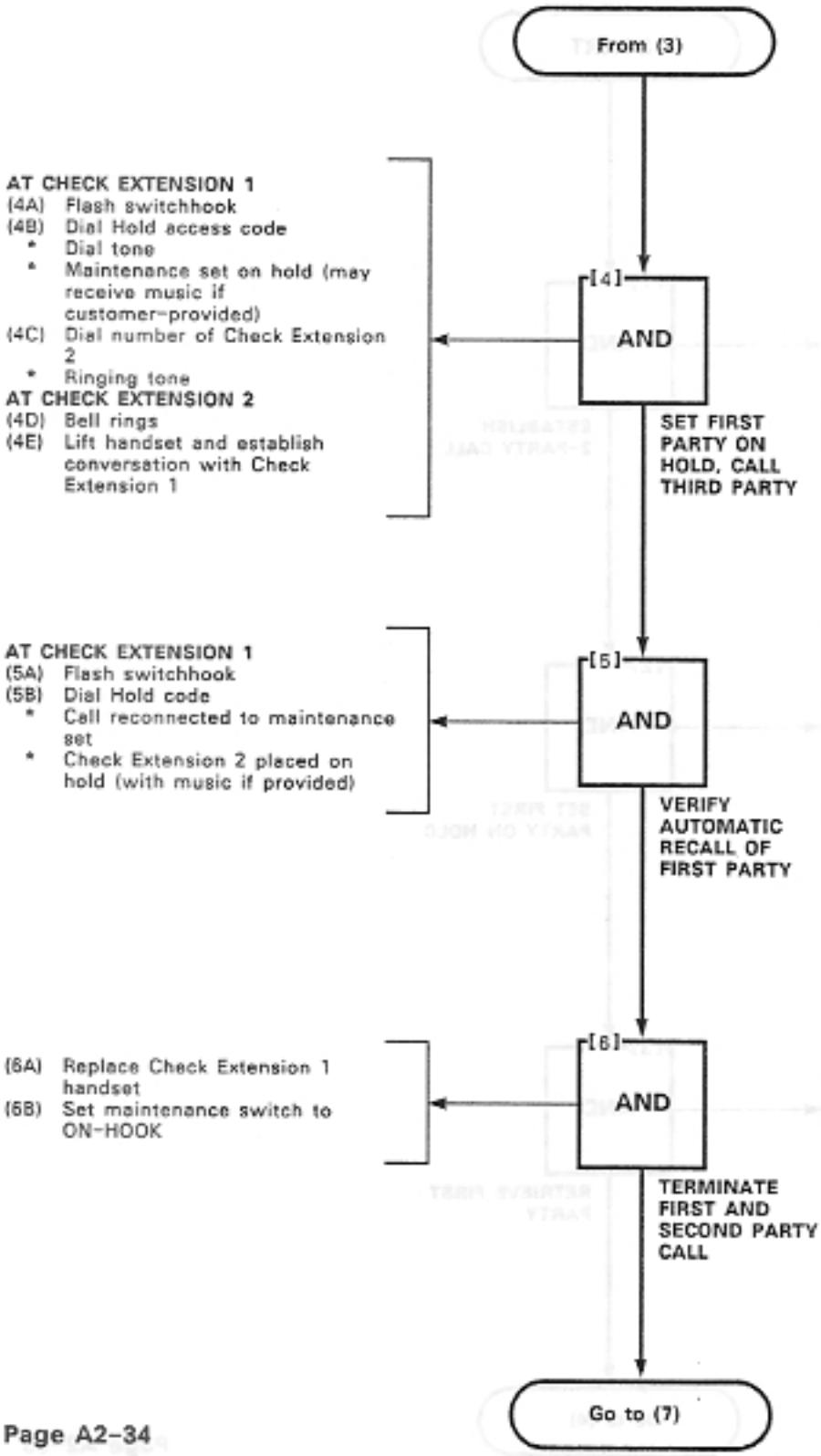
DO NOT DISTURB
MAP215- 215
Issue 1, September 1983
Sheet 2 of 2



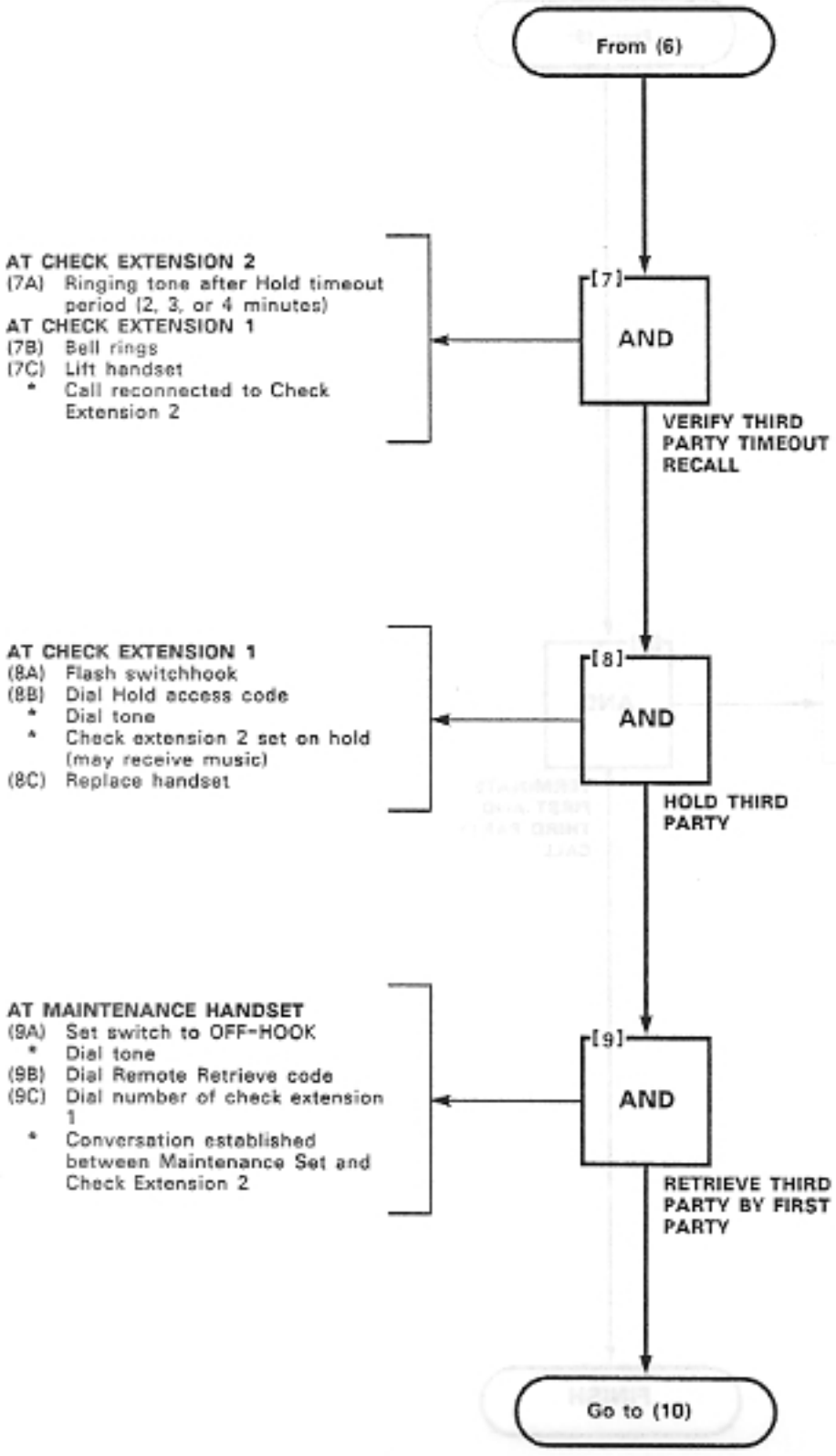
CALL HOLD
MAP215-216
Issue 1, September 1983
Sheet 1 of 4



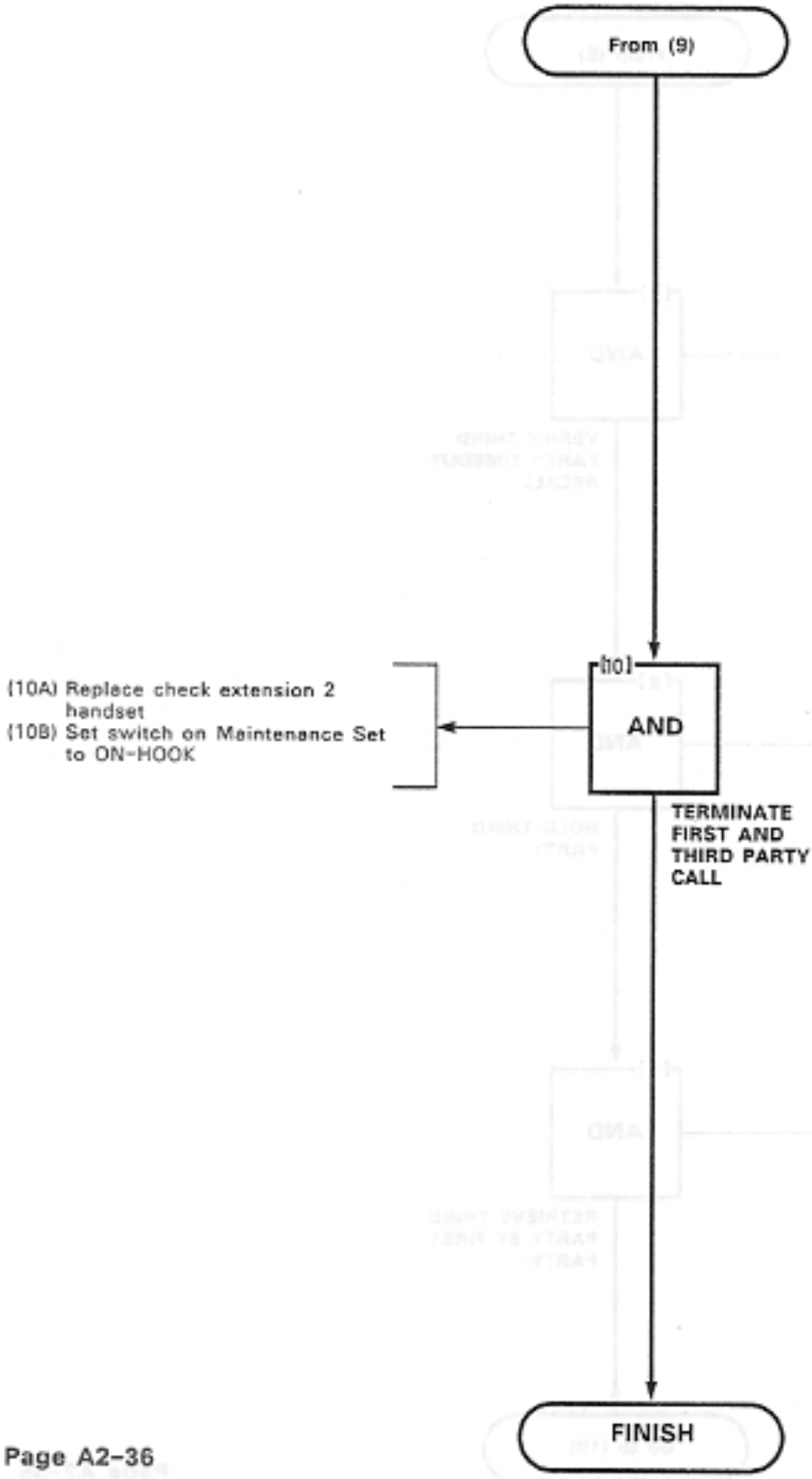
CALL HOLD
MAP215- 216
Issue 1, September 1983
Sheet 2 of 4



CALL HOLD
MAP215-216
Issue 1, September 1983
Sheet 3 of 4



CALL HOLD
MAP215- 216
Issue 1, September 1983
Sheet 4 of 4



ROOM STATUS
MAP215-217
Issue 1, September 1983
Sheet 1 of 1

SYNOPSIS

The maid may update the Room Status from the room.

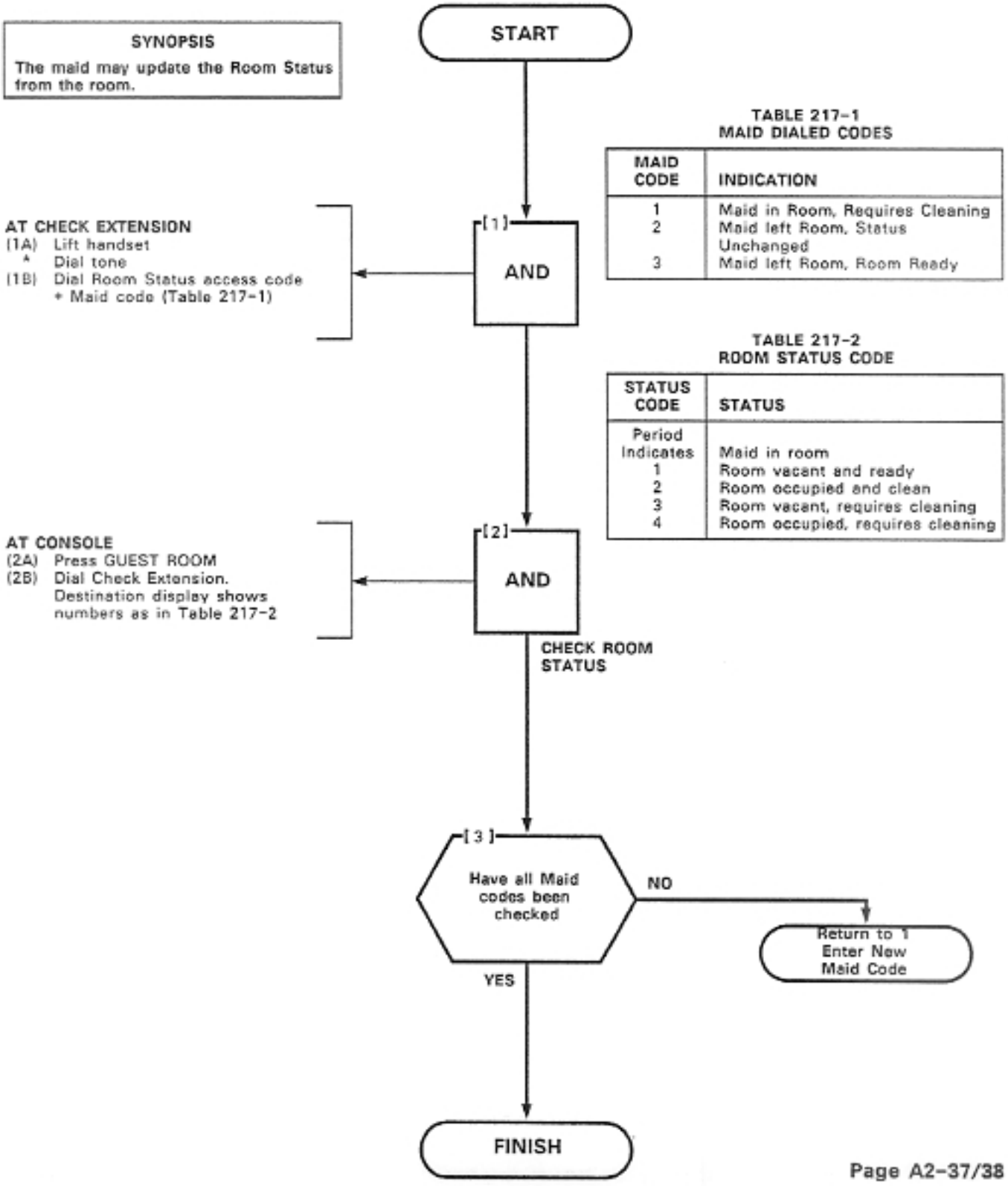


TABLE 217-1
MAID DIALED CODES

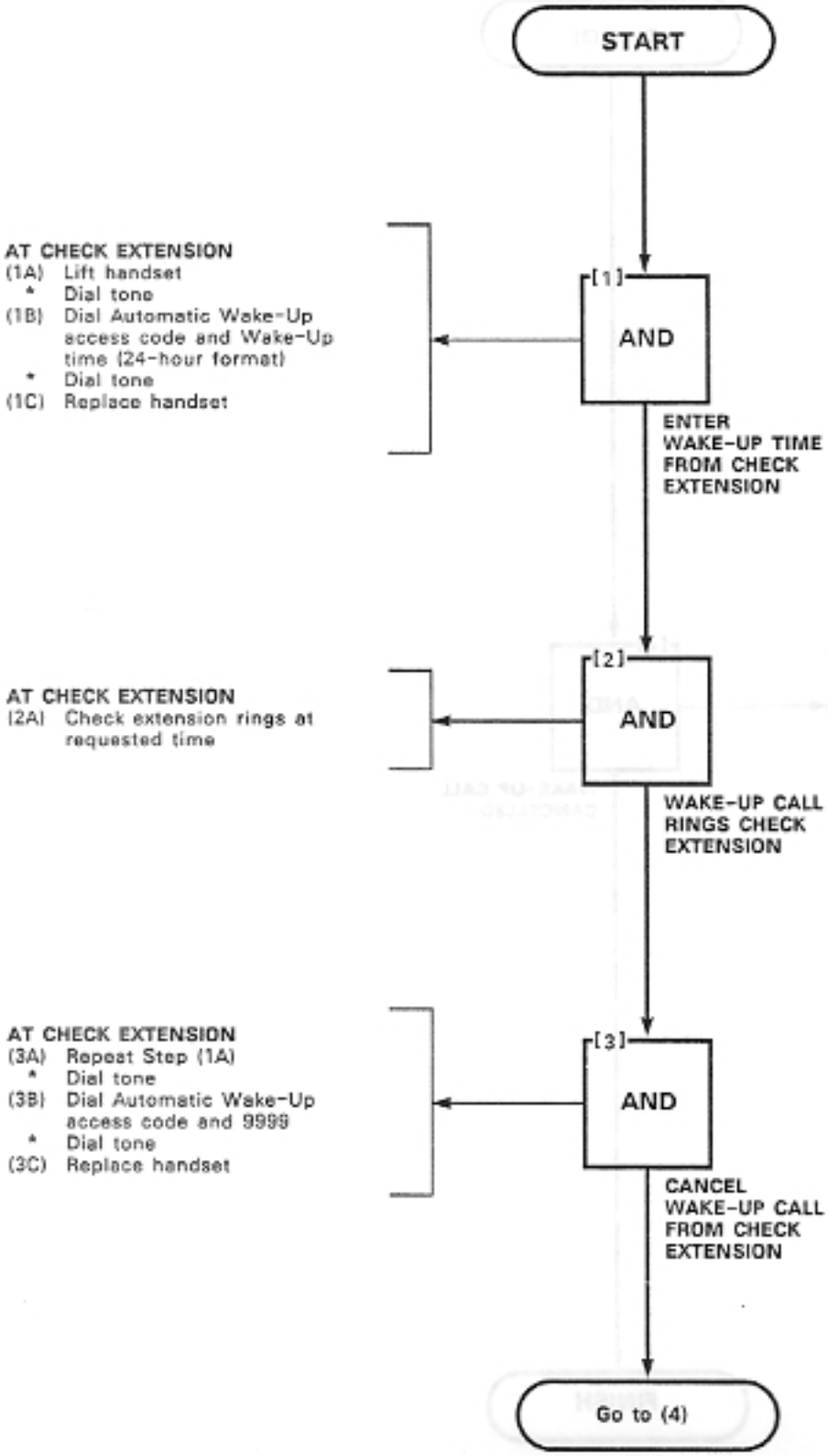
MAID CODE	INDICATION
1	Maid in Room, Requires Cleaning
2	Maid left Room, Status Unchanged
3	Maid left Room, Room Ready

TABLE 217-2
ROOM STATUS CODE

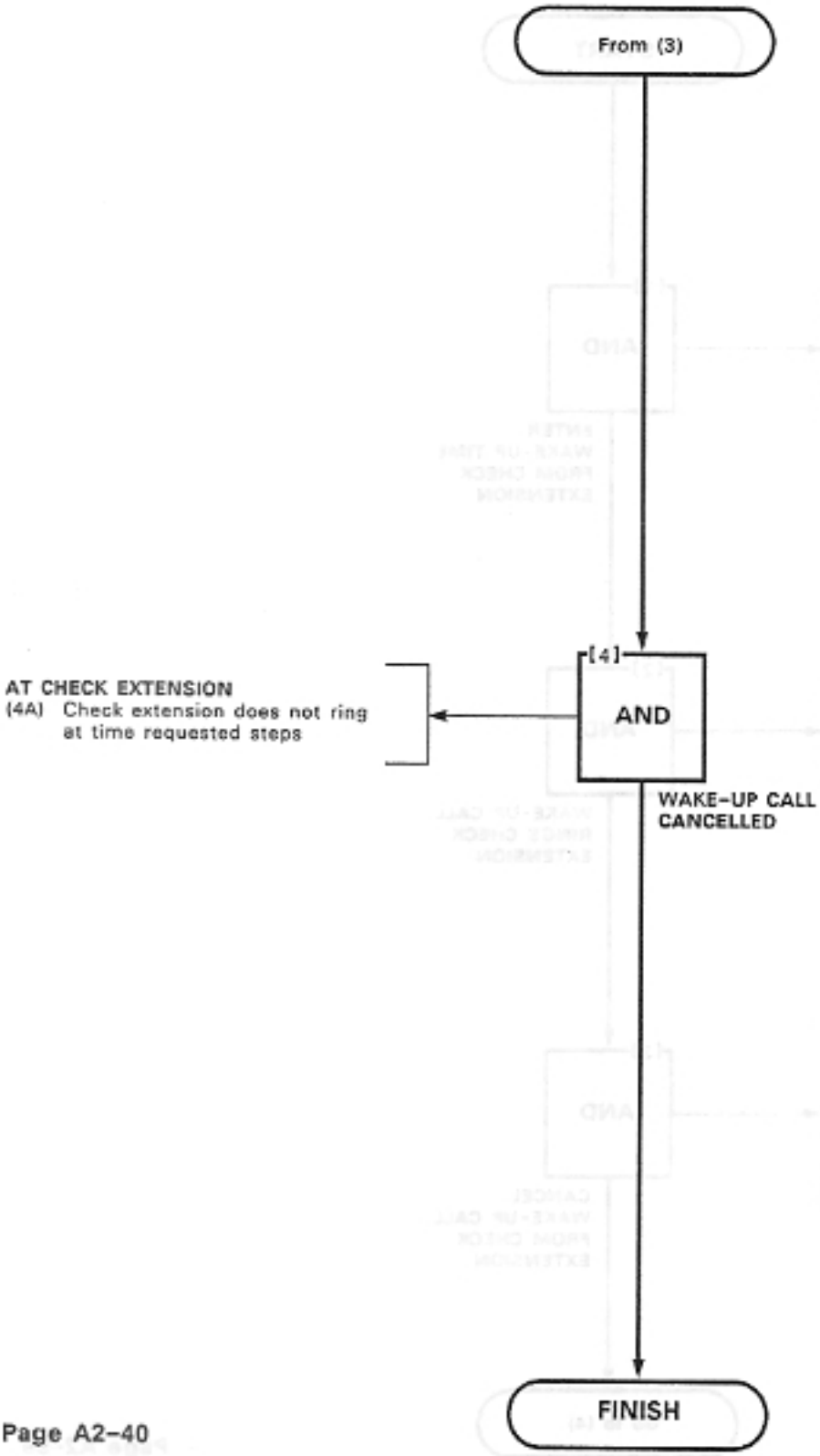
STATUS CODE	STATUS
Period	Maid in room
Indicates	Room vacant and ready
1	Room occupied and clean
2	Room vacant, requires cleaning
3	Room occupied, requires cleaning
4	

START
AND
AND

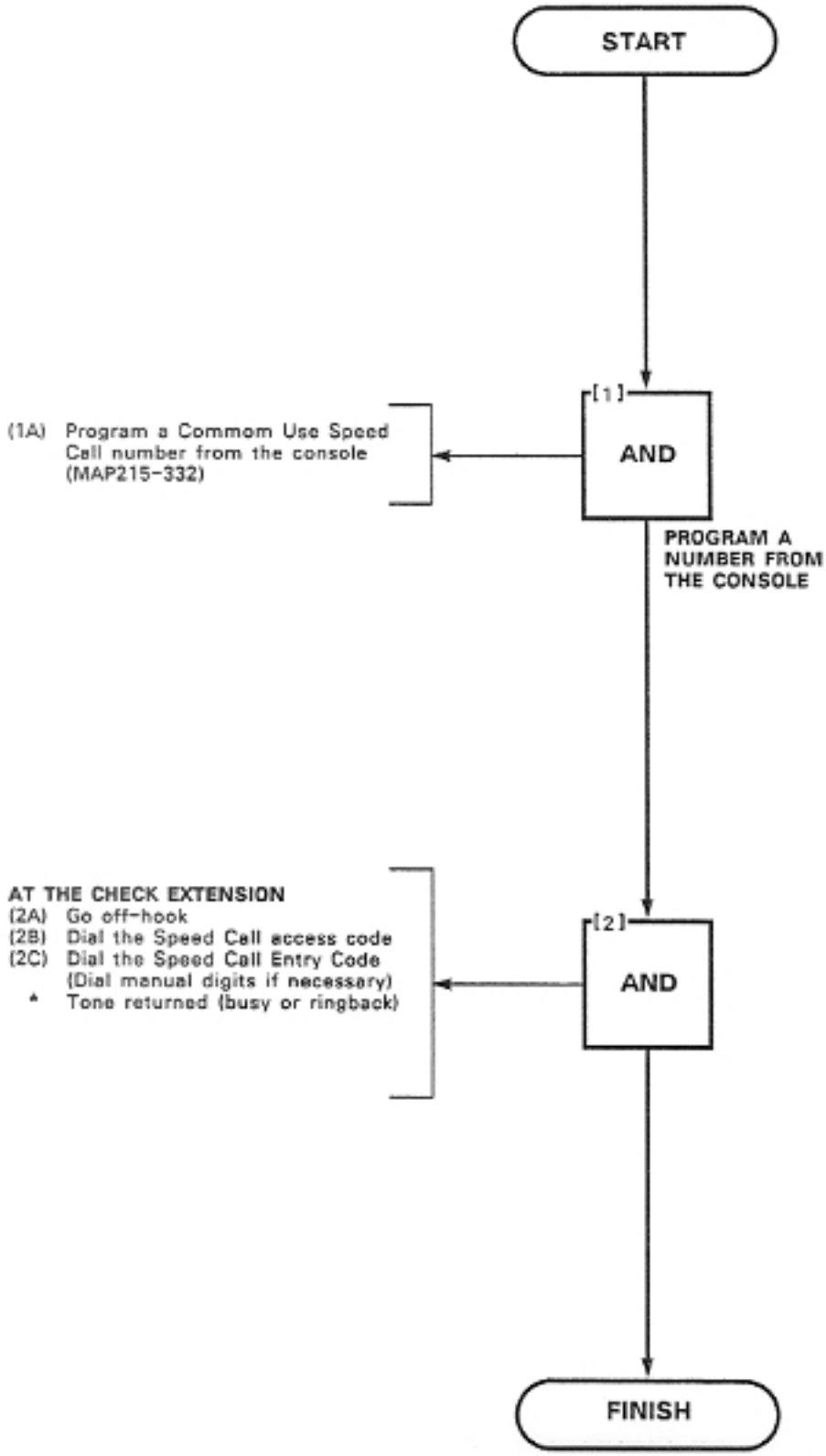
AUTOMATIC WAKE-UP (ALARM CALL)
MAP215-218
Issue 1, September 1983
Sheet 1 of 2



AUTOMATIC WAKE-UP (ALARM CALL)
MAP215- 218
Issue 1, September 1983
Sheet 2 of 2



USE A COMMON USE SPEED CALL
MAP215-219
Issue 1, September 1983
Sheet 1 of 1



START
A1.0
PROGRAM A NUMBER FROM THE CONSOLE
A1.1
FINISH

PERSONAL SPEED CALL
MAP215-220
Issue 1, September 1983
Sheet 1 of 1

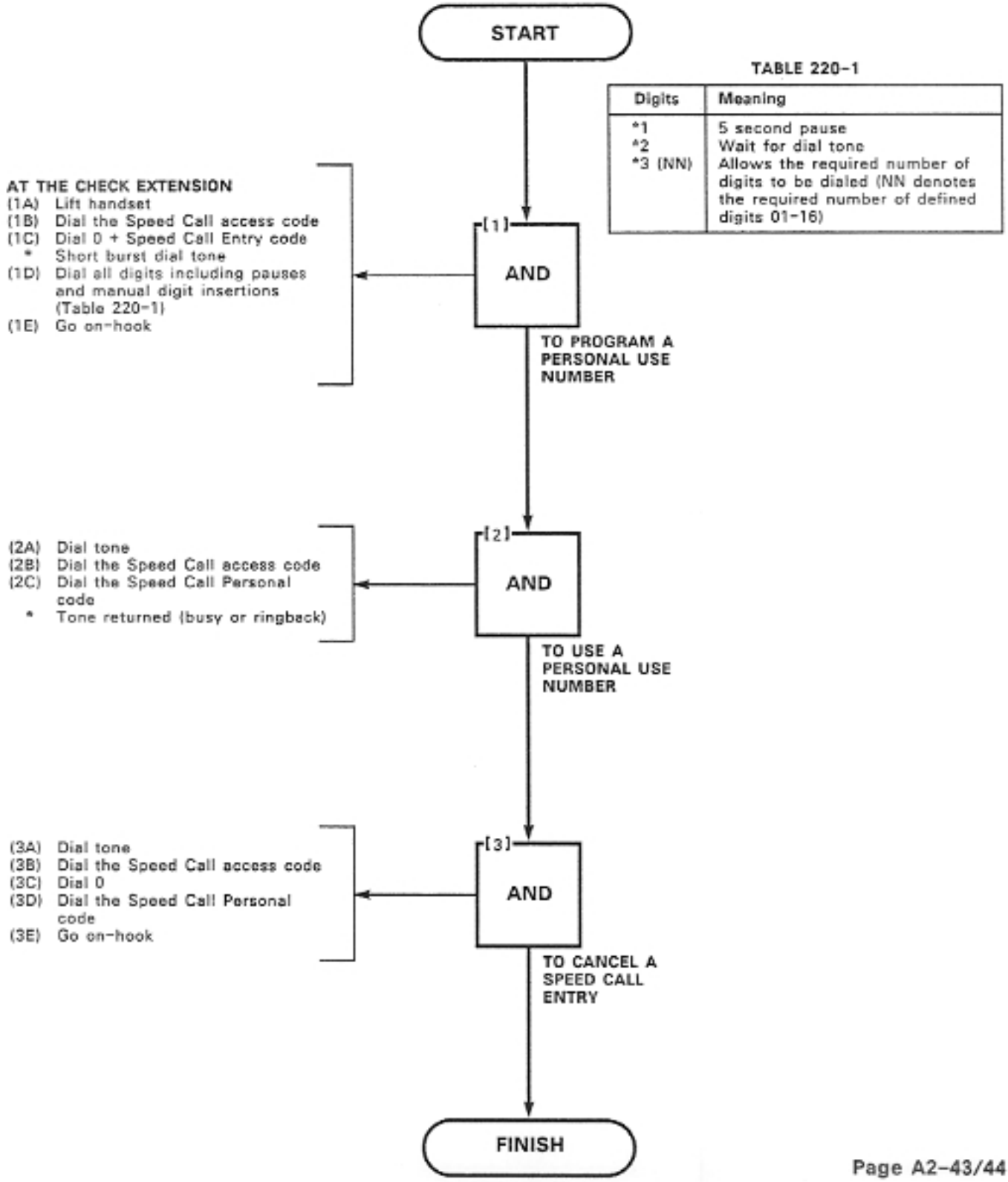


TABLE 220-1

Digits	Meaning
*1	5 second pause
*2	Wait for dial tone
*3 (NN)	Allows the required number of digits to be dialed (NN denotes the required number of defined digits 01-16)

START
AND
AND
AND

EXTERNAL CALL FORWARDING
MAP215-221
Issue 1, September 1983
Sheet 1 of 2

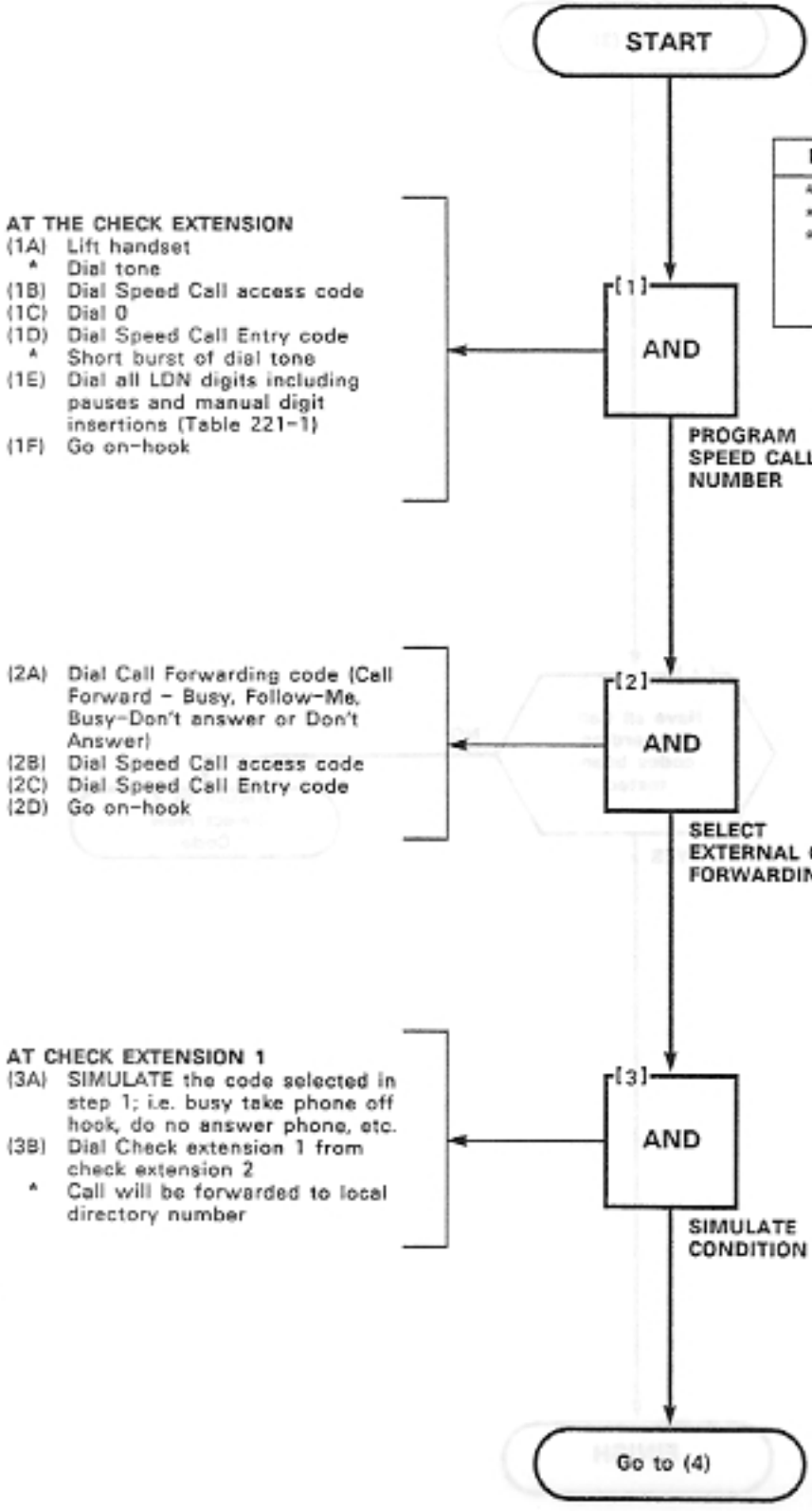
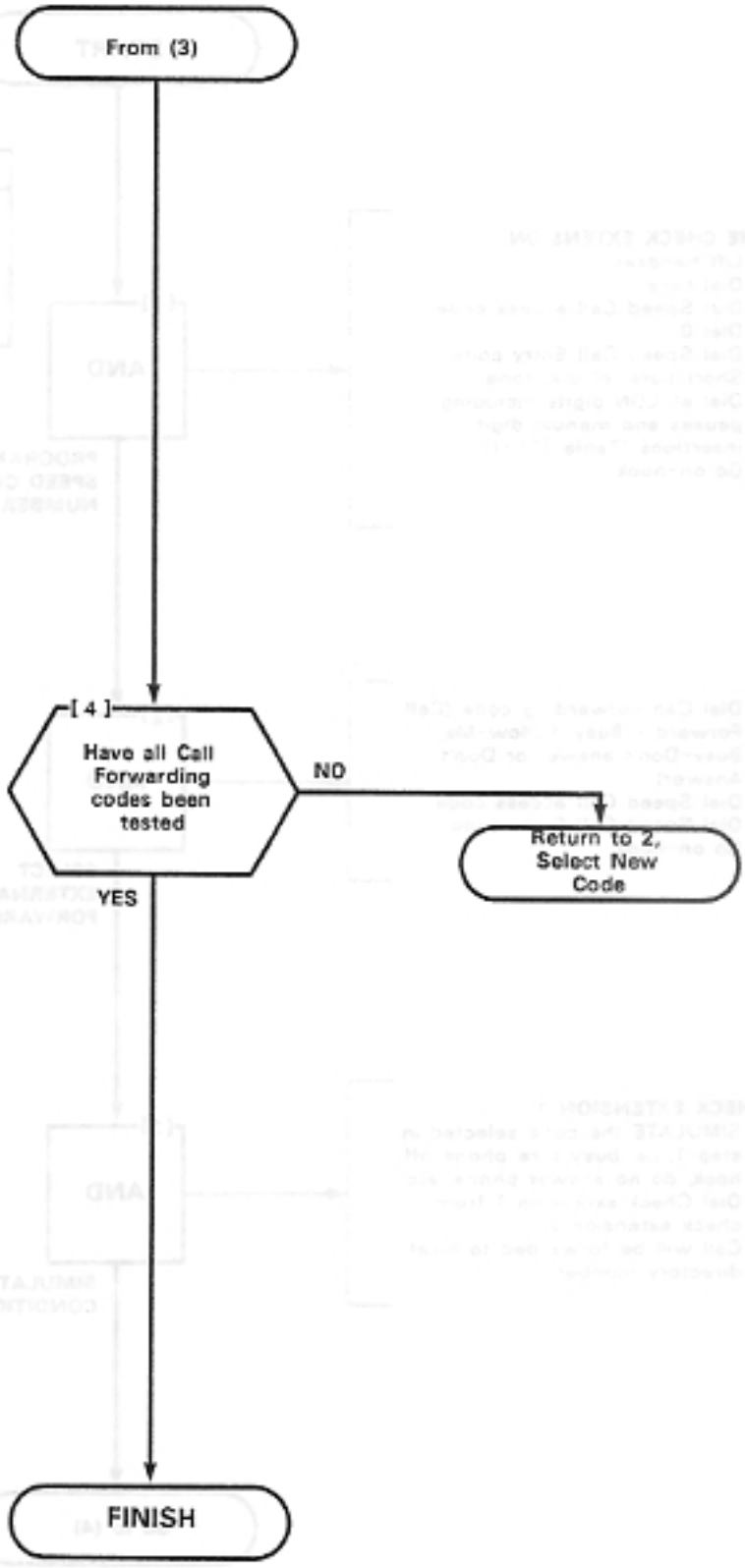


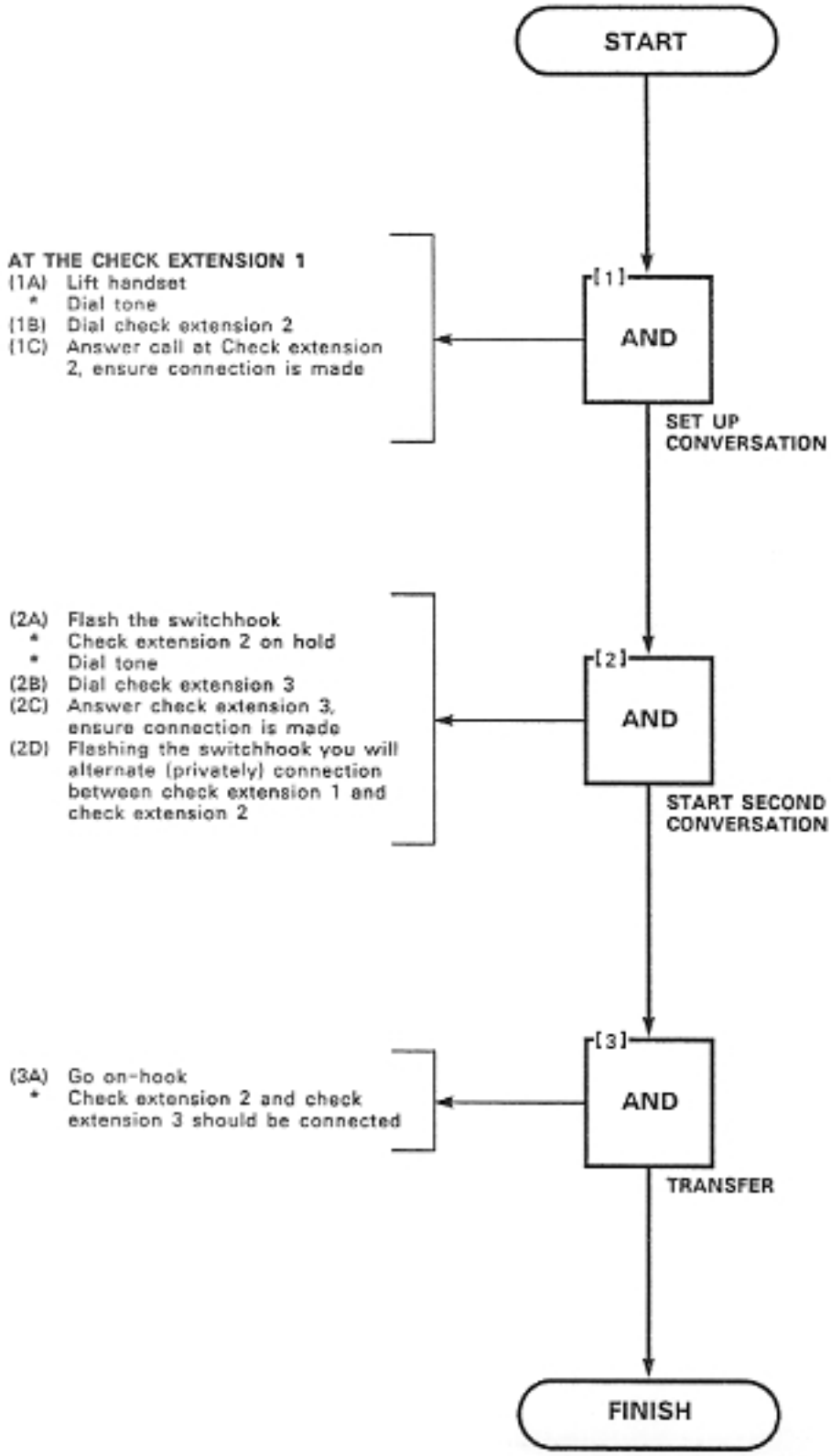
TABLE 221-1

Digits	Meaning
*1 *2 *3 (NN)	5 second pause Wait for dial tone Allows the required number of digits to be dialed (NN denotes the required number of defined digits 01-16)

EXTERNAL CALL FORWARDING
MAP215- 221
Issue 1, September 1983
Sheet 2 of 2

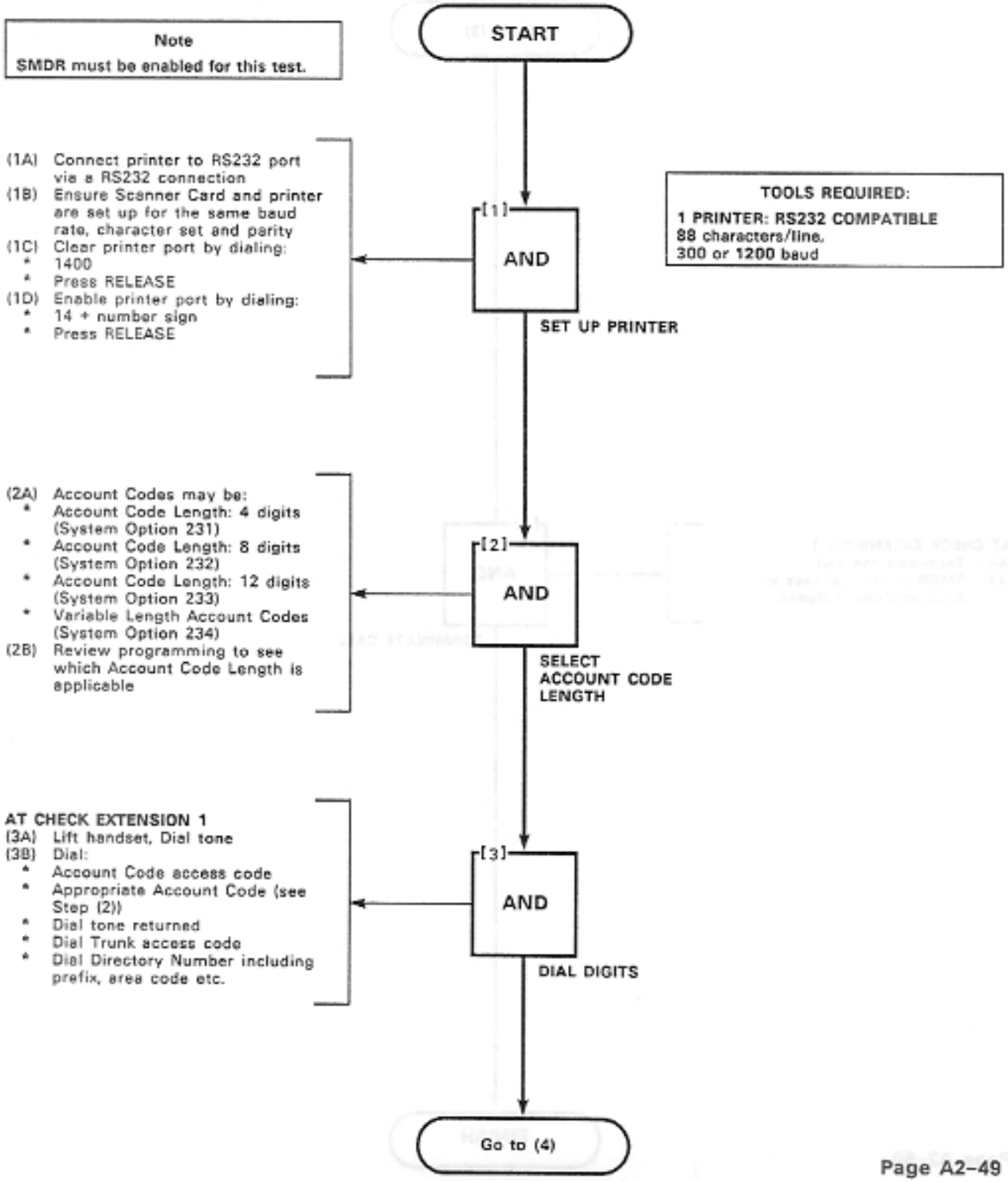


TRANSFER WITH PRIVACY
MAP215-222
Issue 1, September 1983
Sheet 1 of 1

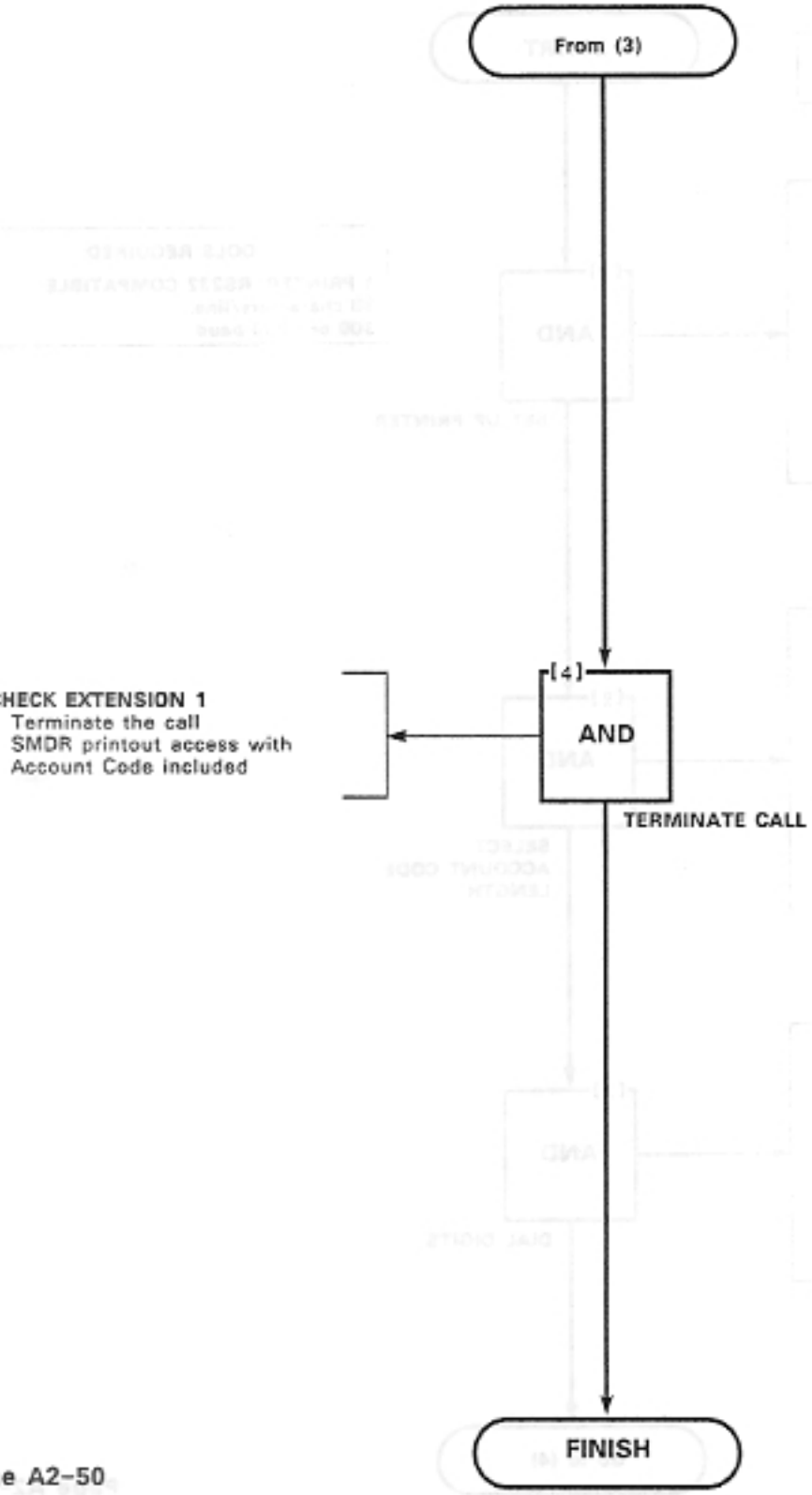


621-3111

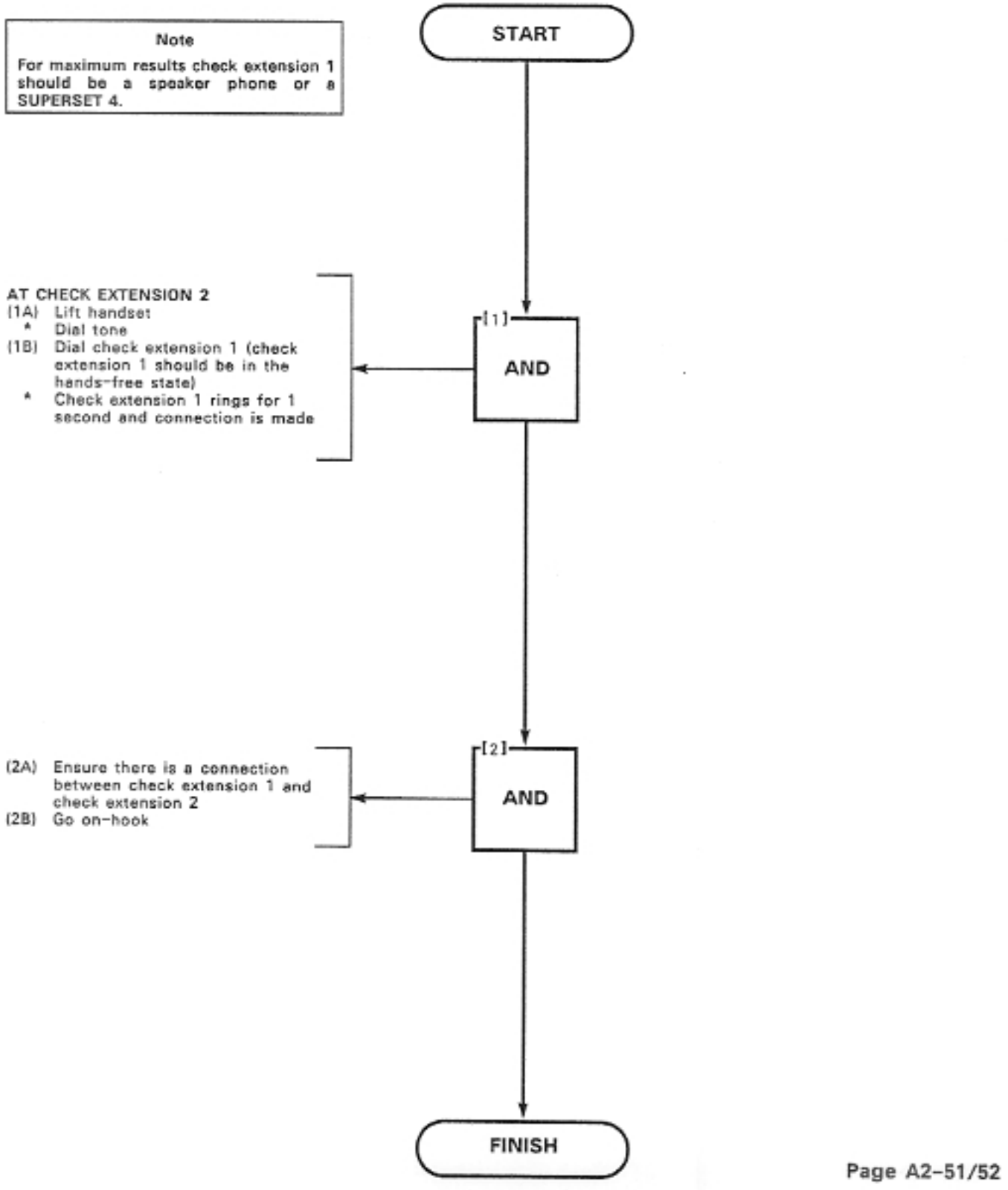
ACCOUNT CODE
MAP215-223
Issue 1, September 1983
Sheet 1 of 2



ACCOUNT CODE
MAP215- 223
Issue 1, September 1983
Sheet 2 of 2

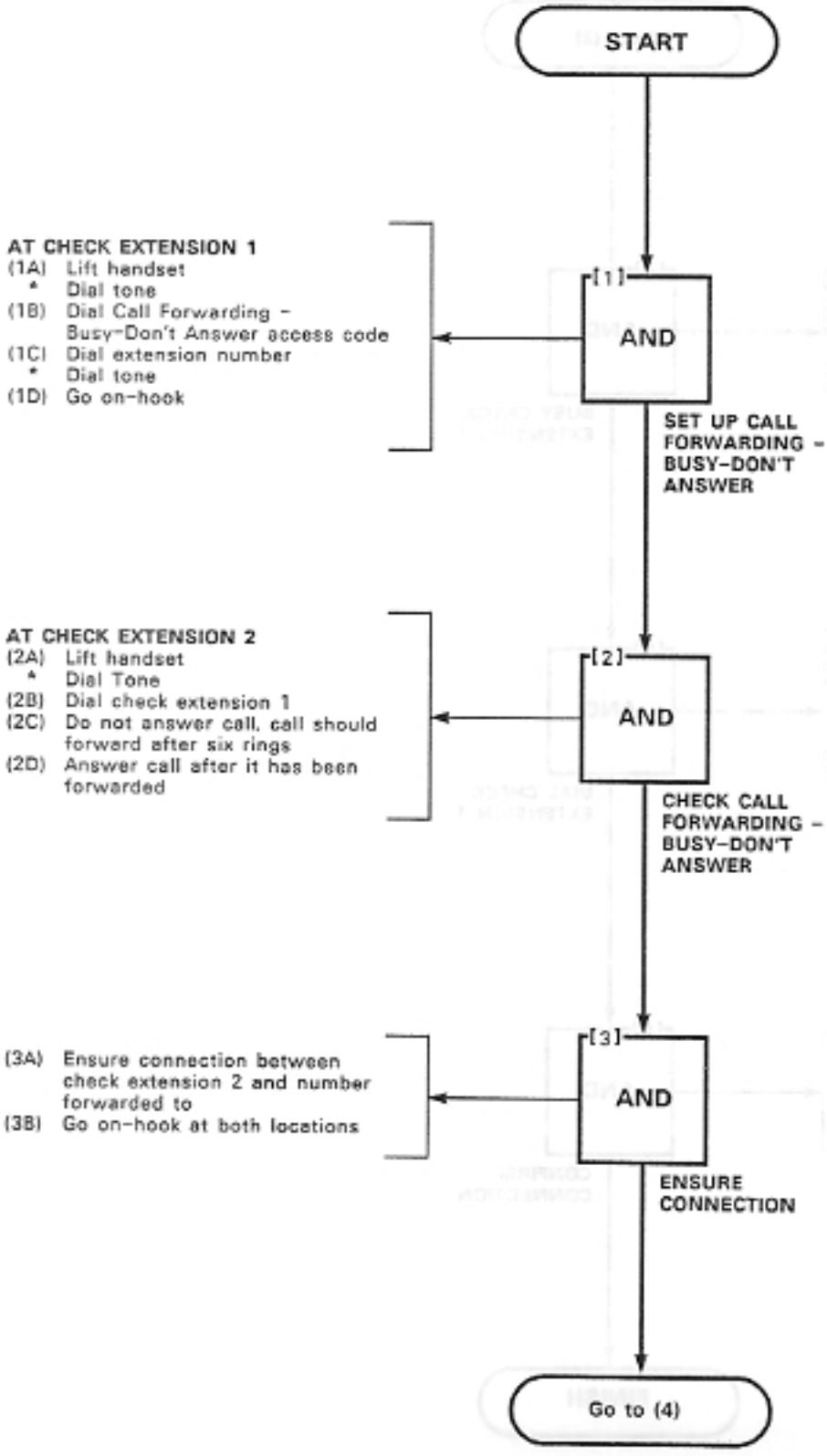


HANDS-FREE STATION
MAP215-224
Issue 1, September 1983
Sheet 1 of 1

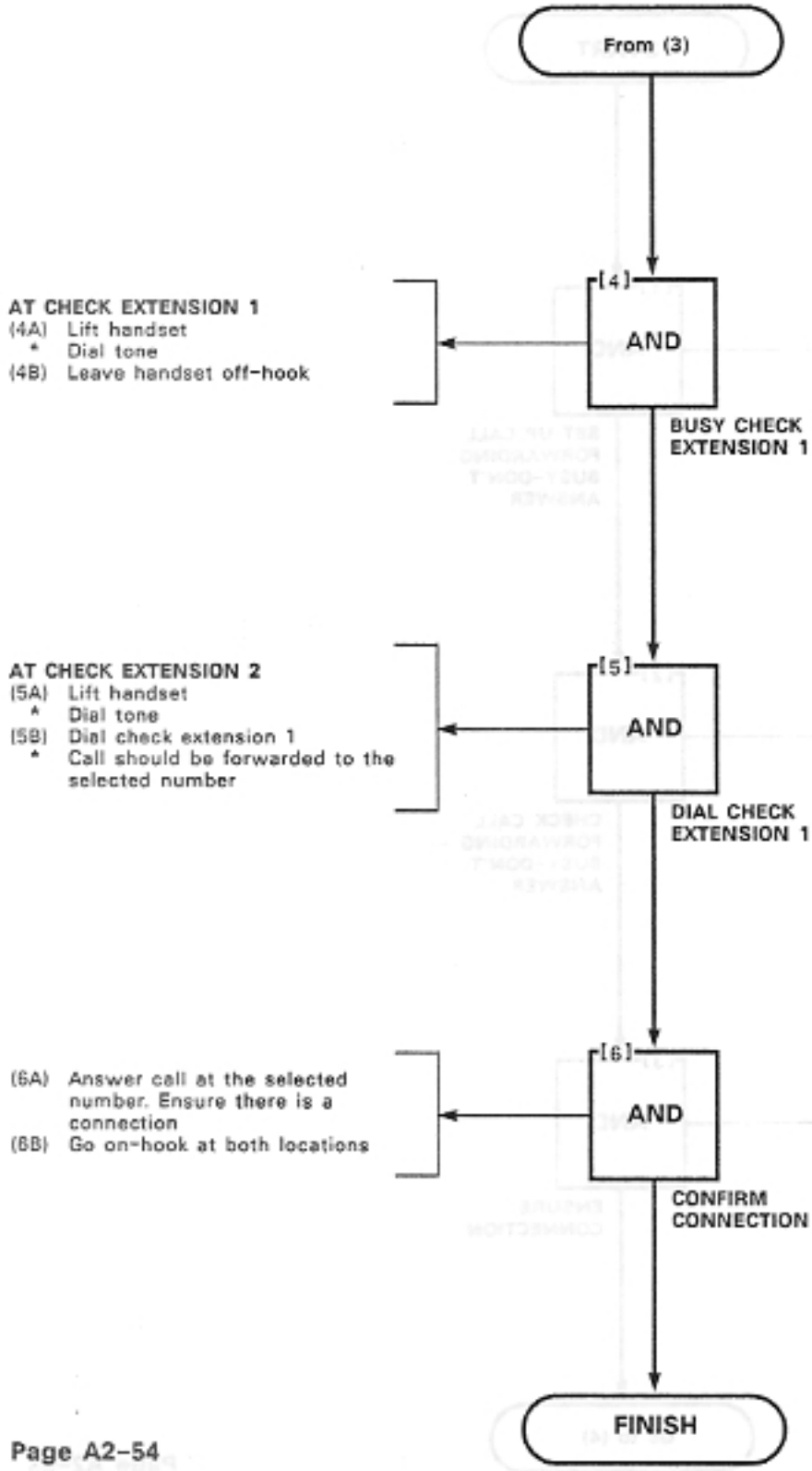


START
AND
AND
FINISH

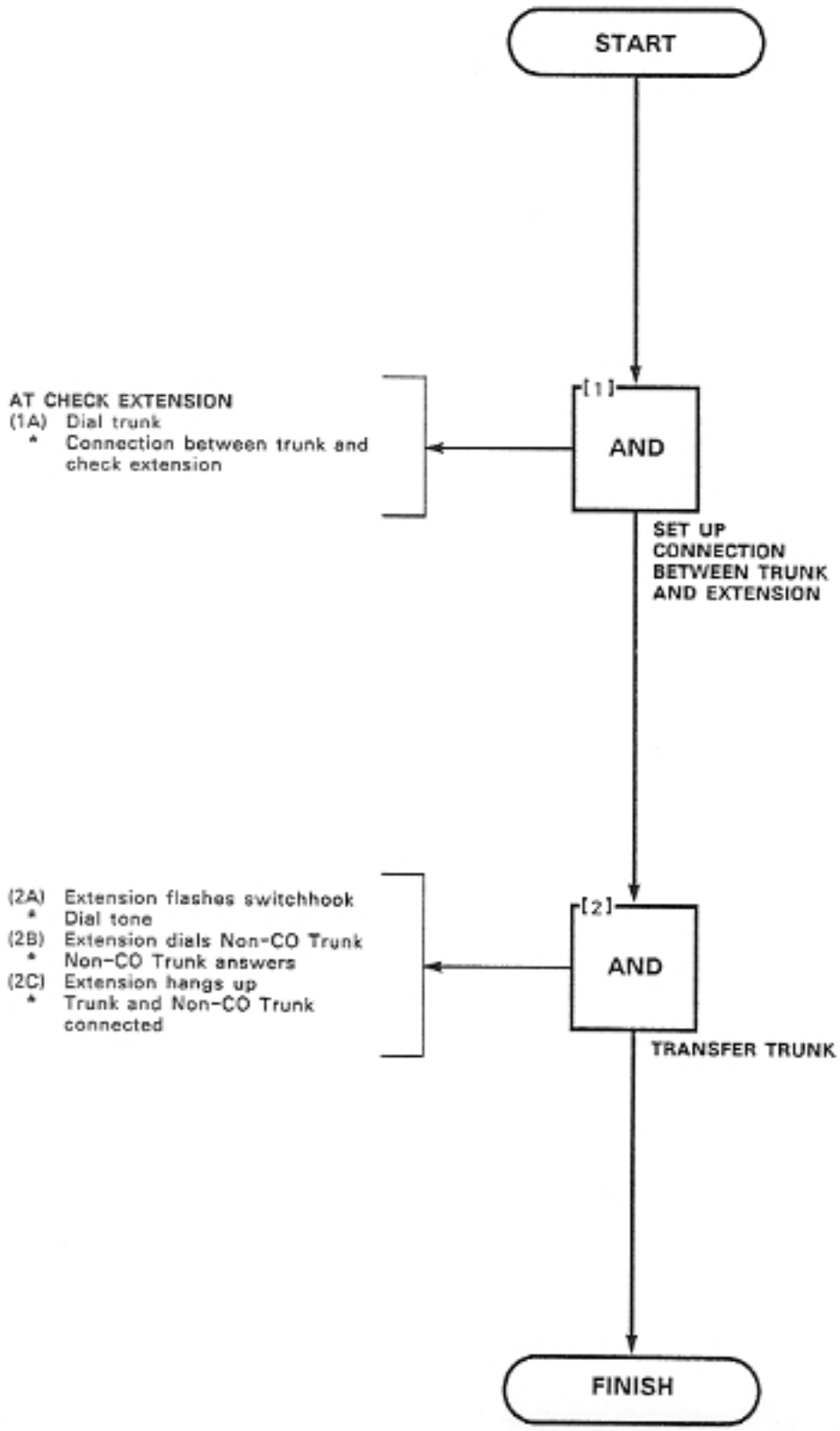
CALL FORWARDING – BUSY/DON'T ANSWER
MAP215-225
Issue 1, September 1983
Sheet 1 of 2



CALL FORWARDING -- BUSY/DON'T ANSWER
MAP200- 225
Issue 1. September 1983
Sheet 2 of 2

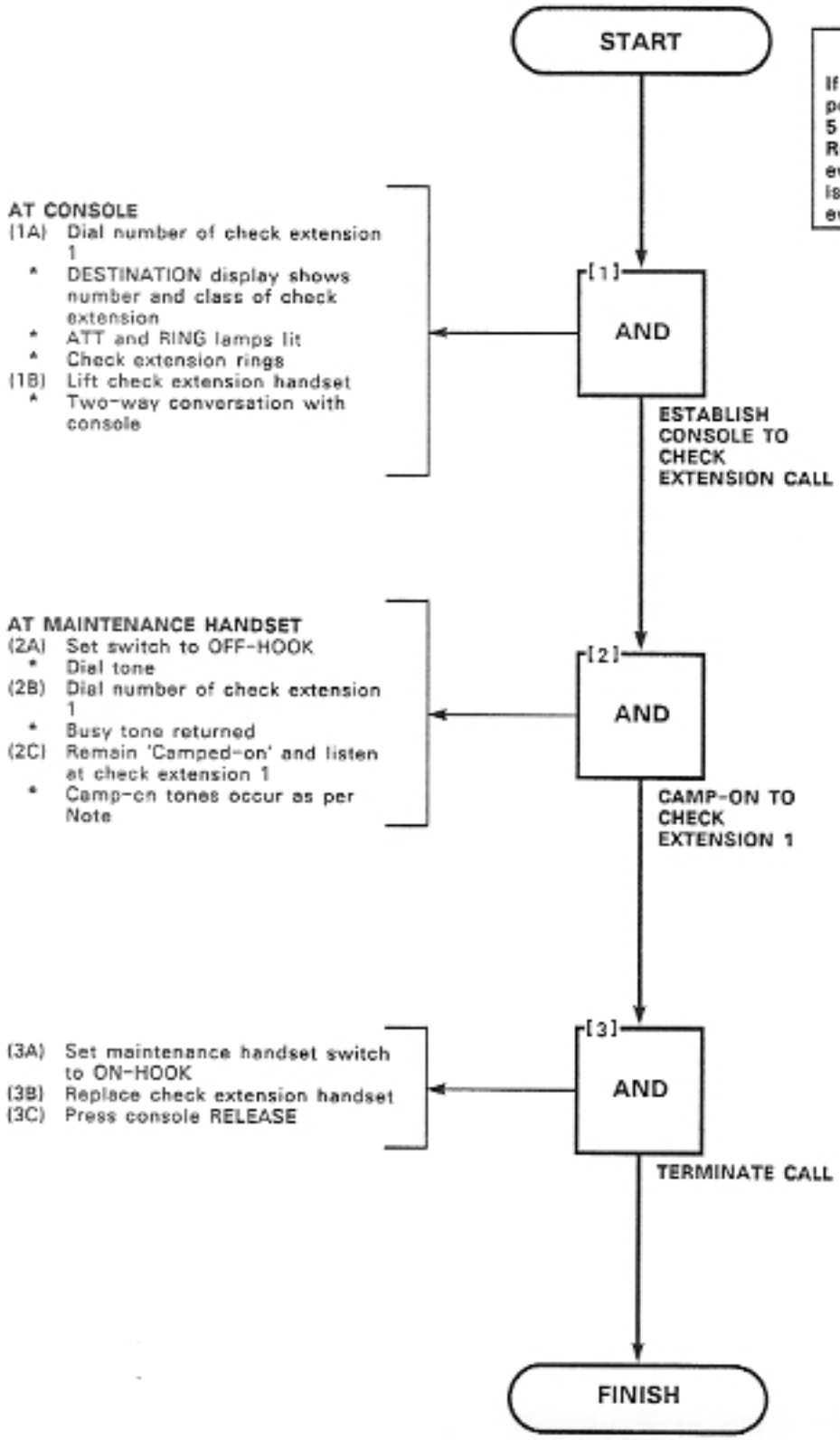


ENABLE NON-CO TRUNK TO TRUNK CONNECT
MAP215-226
Issue 1, September 1983
Sheet 1 of 1



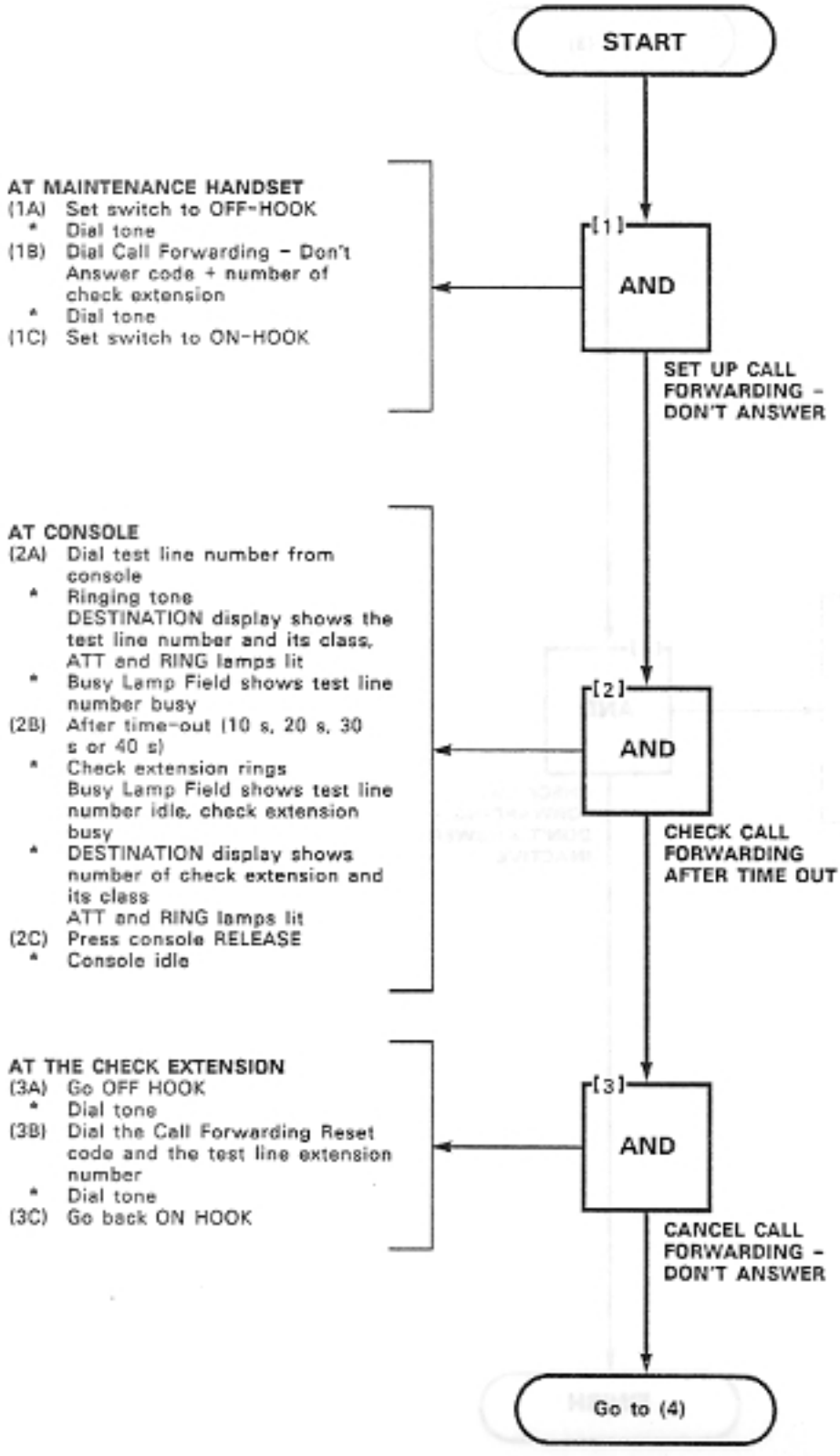
START
AND
AND
FINISH

REPEATED CAMP-ON TONES
MAP215-227
Issue 1, September 1983
Sheet 1 of 1

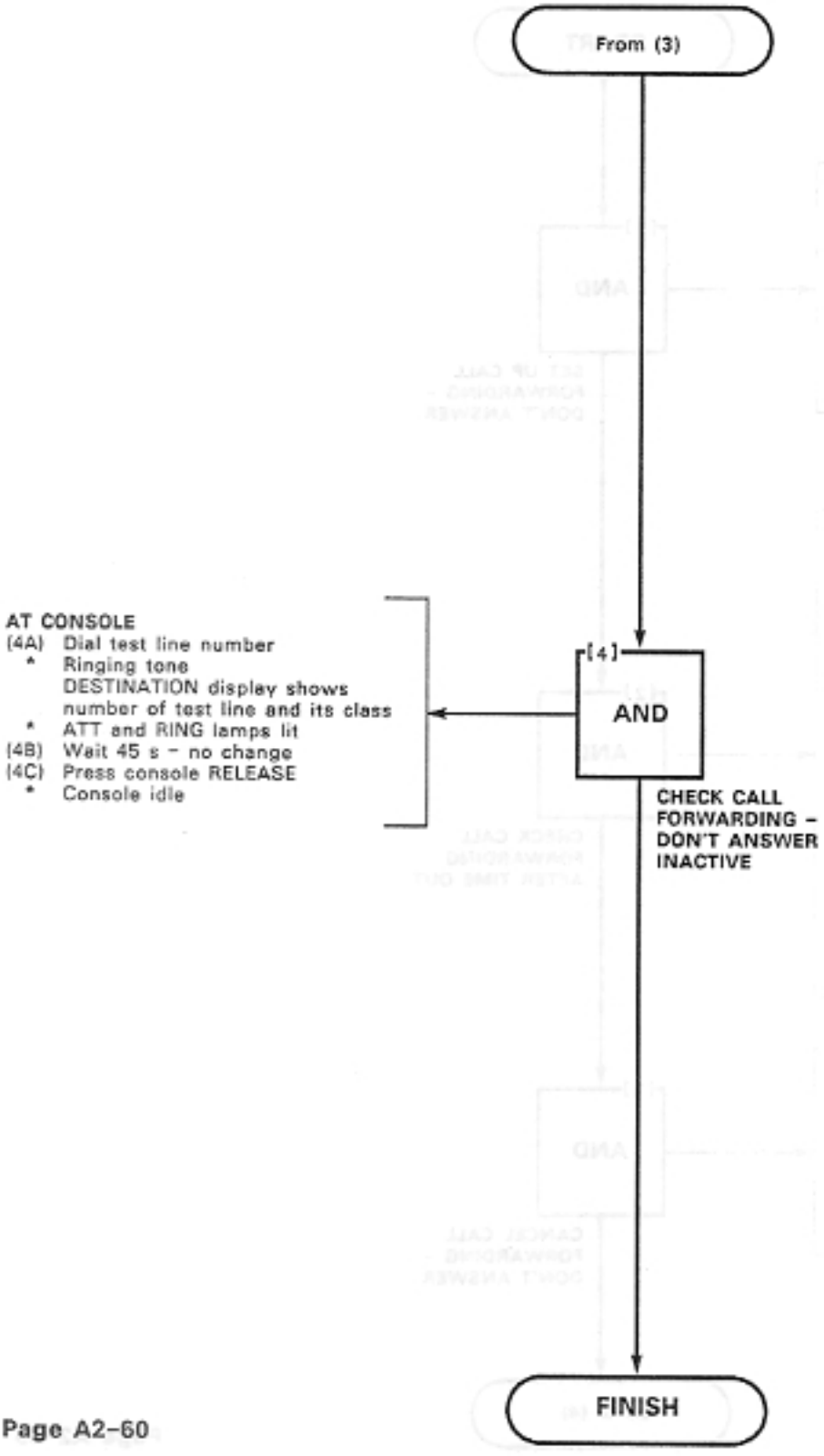


START
AND
AND
AND
FINISH

EXTENSION RESET
MAP215-228
Issue 1, September 1983
Sheet 1 of 2



EXTENSION RESET
MAP215- 228
Issue 1, September 1983
Sheet 2 of 2



ANSWER INCOMING CALL
MAP215-300
Issue 1, September 1983
Sheet 1 of 5

START

Note: Equipment number displayed is same as individual Trunk Access Number.

[1] Is system equipped with a CO trunk and an outgoing trunk

NO → Abandon Test → FINISH

YES

AT MAINTENANCE HANDSET
(2A) Set switch to OFF-HOOK
* Dial tone
(2B) Dial CO Trunk access code
* CO dial tone
(2C) Dial console listed directory number

[2] AND

DIAL LDN

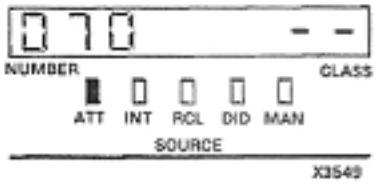


Fig. 300-1

AT CONSOLE
(3A) ANSWER and LDN lamps flash, ringer sounds
(3B) Press LDN
* ANSWER, LDN and SOURCE lamps light
* SOURCE display (Fig. 300-1) shows number of calling trunk and ATT lamp lit
* Two-way conversation, console and maintenance set

[3] AND

ANSWER LDN CALL (FIG. 300-1)

Go to (4)

ANSWER INCOMING CALL
MAP215- 300
Issue 1, September 1983
Sheet 2 of 5

Note: Equipment number displayed is same as individual Trunk Access Number.

From (3)

[4]
AND

(4A) Press SERIAL CALL
* SERIAL CALL lamp lights

SET UP SERIAL CALL

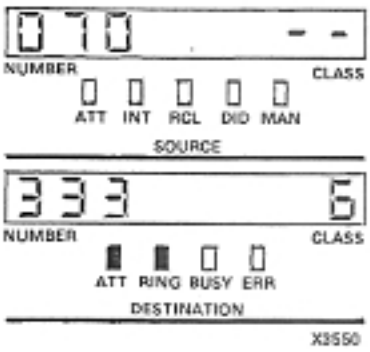


Fig. 300-2

[5]
AND

AT CONSOLE
(5A) Dial number of check extension
* ANSWER, LDN and DESTINATION lamps lit
* SOURCE display (Fig. 300-2) shows the equipment number of the calling trunk
* DESTINATION display shows the number and COS of the check extension
* ATT and RING lamps lit

EXTEND CALL TO TEST STATION (FIG. 300-2)

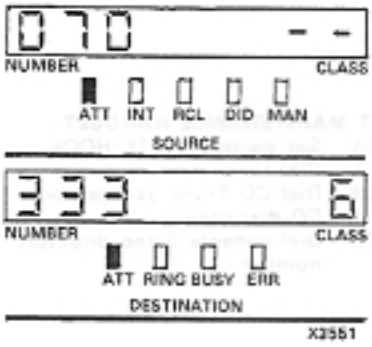


Fig. 300-3

[6]
AND

AT CHECK EXTENSION
(6A) Lift check extension handset
* Two-way conversation with console

ANSWER CALL

Go to (7)

ANSWER INCOMING CALL
MAP215- 300
Issue 1, September 1983
Sheet 3 of 5

Note: Equipment number displayed is same as individual Trunk Access Number.

From (6)

AT CONSOLE
(7A) Press SOURCE
- ANSWER, LDN and SOURCE lamps lit
- SOURCE display (Fig. 300-3) shows the number of the calling trunk, ATT lamp lit
- DESTINATION display shows number and COS of check extension
- Two-way private call with maintenance set

[7] AND

SPLIT CALL TO SOURCE (FIG. 300-3)

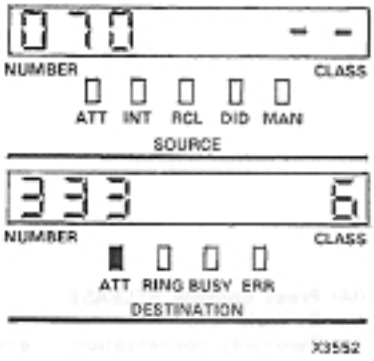


Fig. 300-4

AT CONSOLE
(8A) Press DEST
- ANSWER, LDN and DEST lamps lit
- SOURCE display (Fig. 300-4) shows the equipment number of the calling trunk
- DESTINATION display shows the number and COS of the check extension
- ATT lamp lit
- Two-way private call with check extension

[8] AND

SPLIT CALL TO DESTINATION (FIG. 300-4)

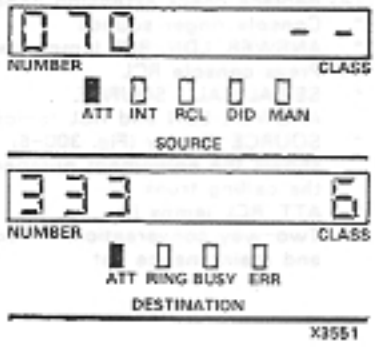


Fig. 300-5

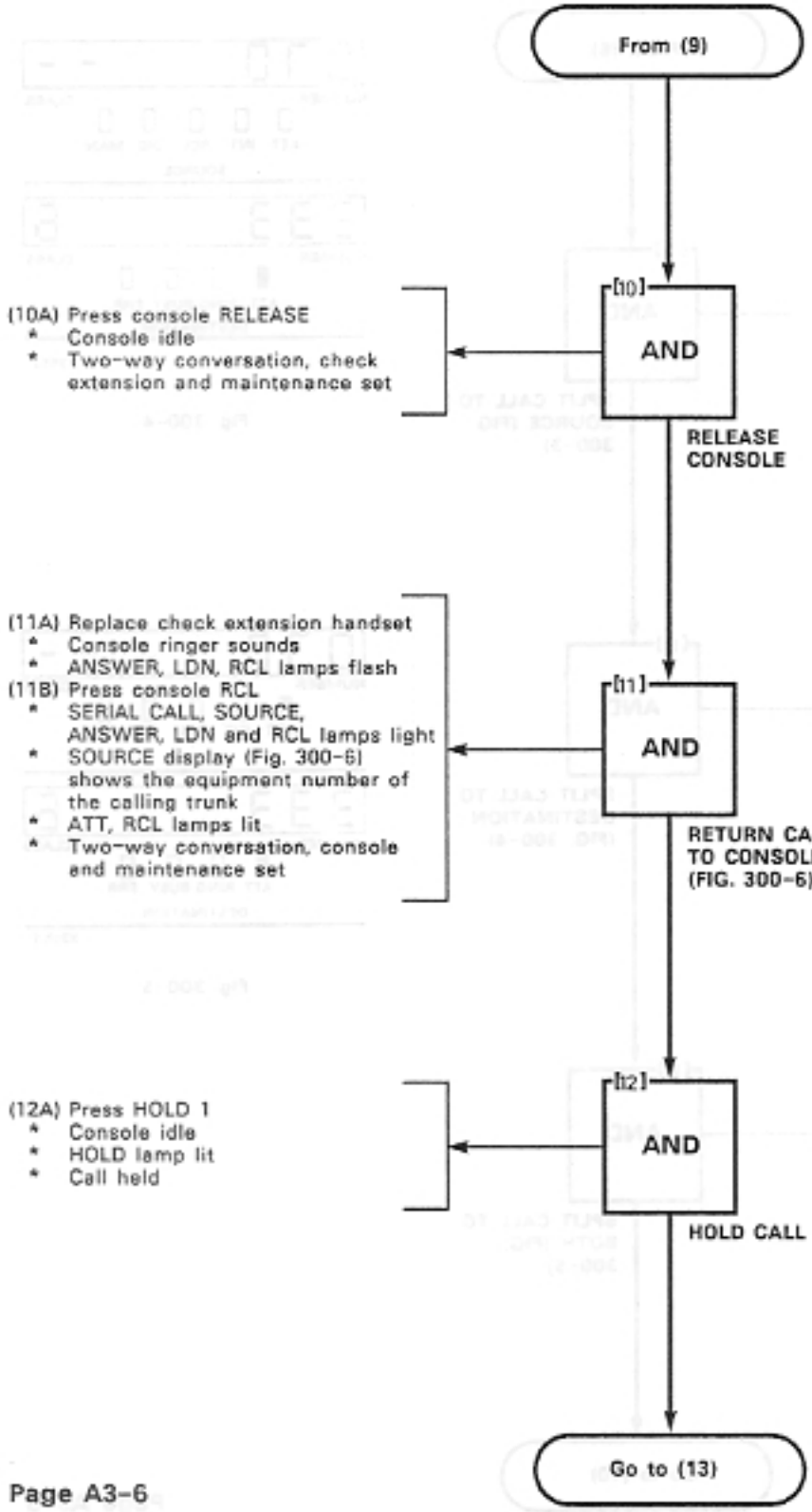
AT CONSOLE
(9A) Press BOTH
- ANSWER, LDN and BOTH lamps lit
- SOURCE display (Fig. 300-5) shows equipment number of calling trunk
- ATT lamp lit
- DESTINATION display shows number and COS of check extension
- ATT lamp lit
- Three-way call, check extension, maintenance set and console

[9] AND

SPLIT CALL TO BOTH (FIG. 300-5)

Go to (10)

ANSWER INCOMING CALL
MAP215- 300
Issue 1, September 1983
Sheet 4 of 5



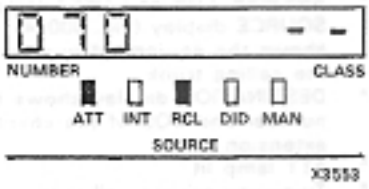


Fig. 300-6

ANSWER INCOMING CALL
MAP215-300
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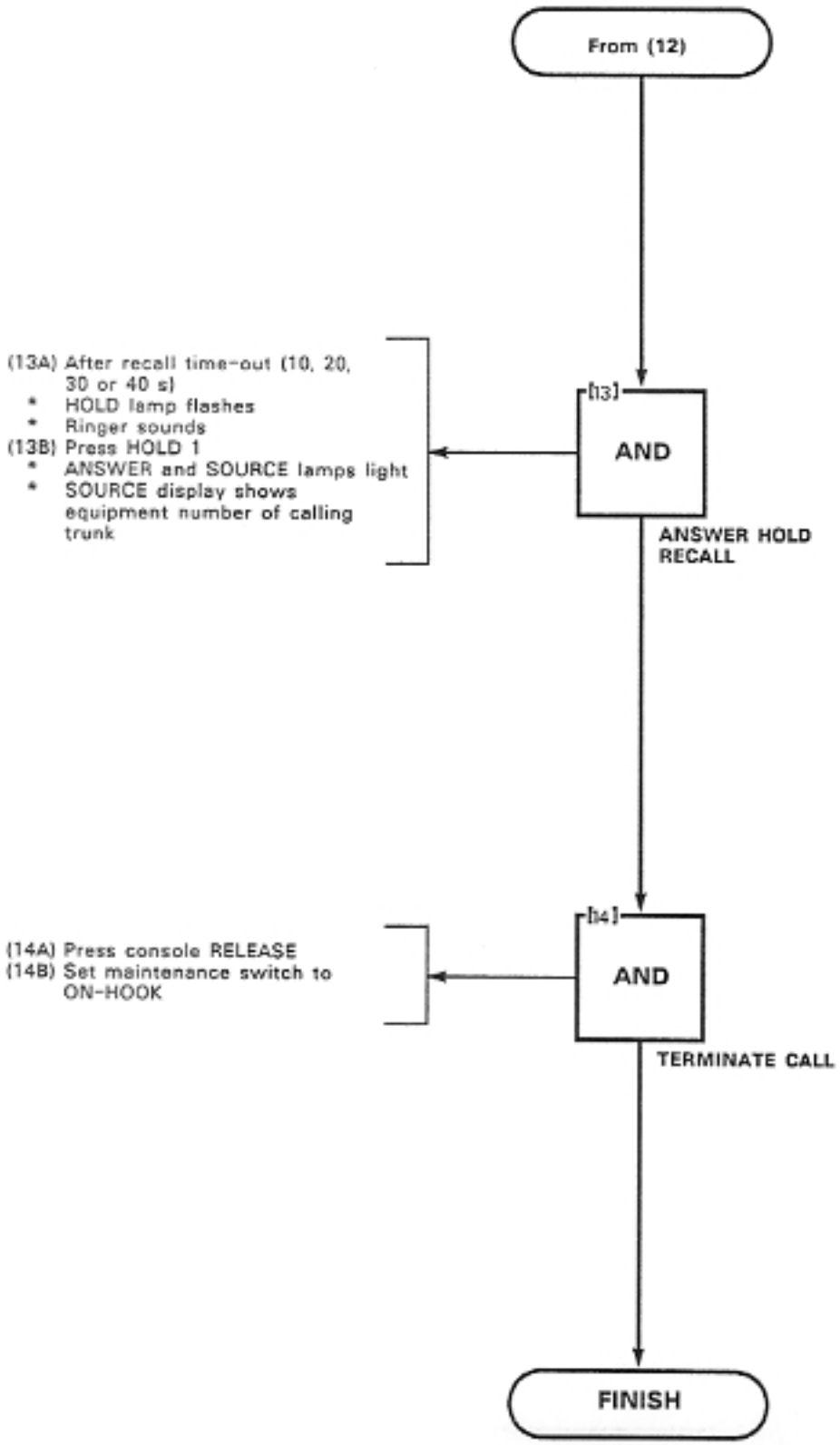
Sheet 5 of 5



AND
AND

AUTOMATIC CALLBACK
MAP215-301
Issue 1, September 1983
Sheet 1 of 2

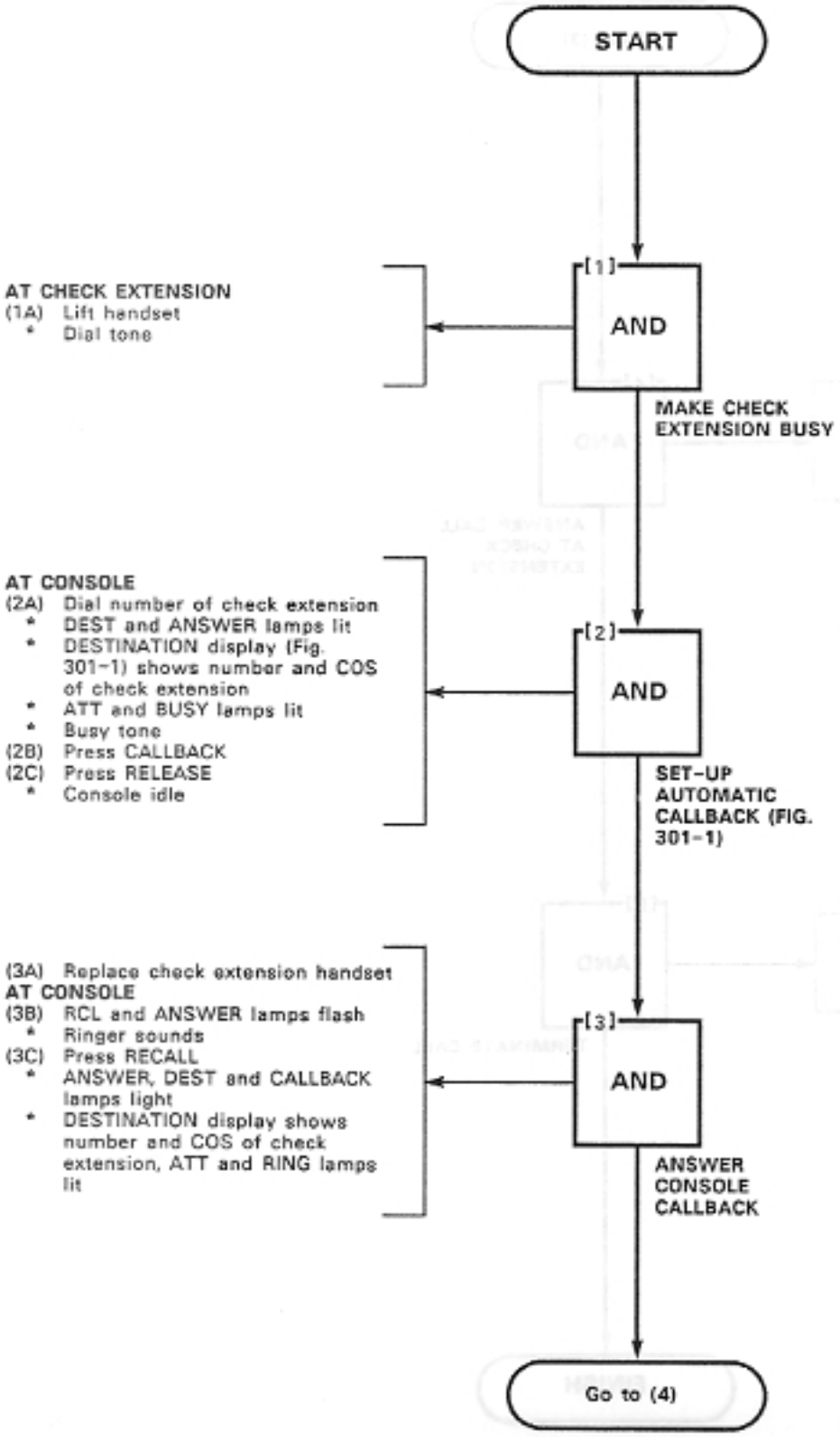
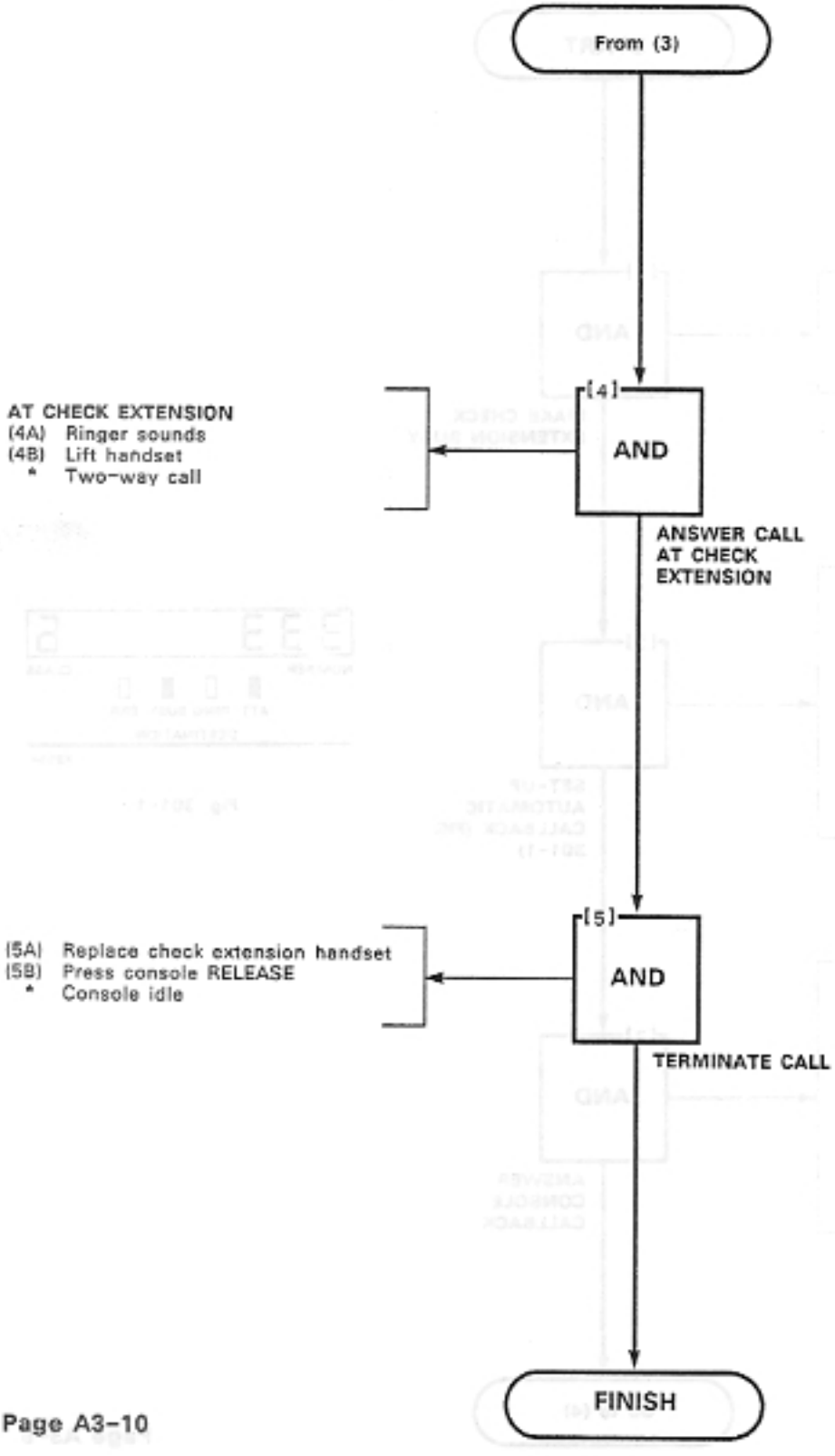


Fig. 301-1

AUTOMATIC CALLBACK
MAP215- 301
Issue 1. September 1983
Sheet 2 of 2



EXTENDING INTERNAL CALLS
MAP215-302
Issue 1, September 1983
Sheet 1 of 2

START

Note: Individual Trunk Access Number displayed is same as equipment number of trunk.

[1] Is system equipped with a CO trunk

NO → Terminate Test → FINISH

YES

[2] AND

AT CHECK EXTENSION
(2A) Lift handset
* Dial tone
(2B) Dial 0
* Ringing tone

DIAL 0

[3] AND

AT CONSOLE
(3A) ANSWER and DIAL 0 lamps flash
* Ringer sounds
(3B) Press DIAL 0
* ANSWER, DIAL 0 and SOURCE lamps light
* SOURCE display (Fig. 302-1) shows number and COS of check extension
* ATT lamp lit
* Two-way conversation

ANSWER DIAL 0 CALL (FIG. 302-1)

Go to (4)

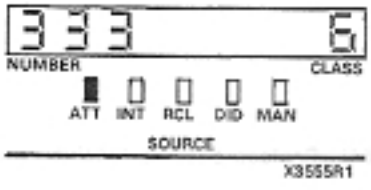
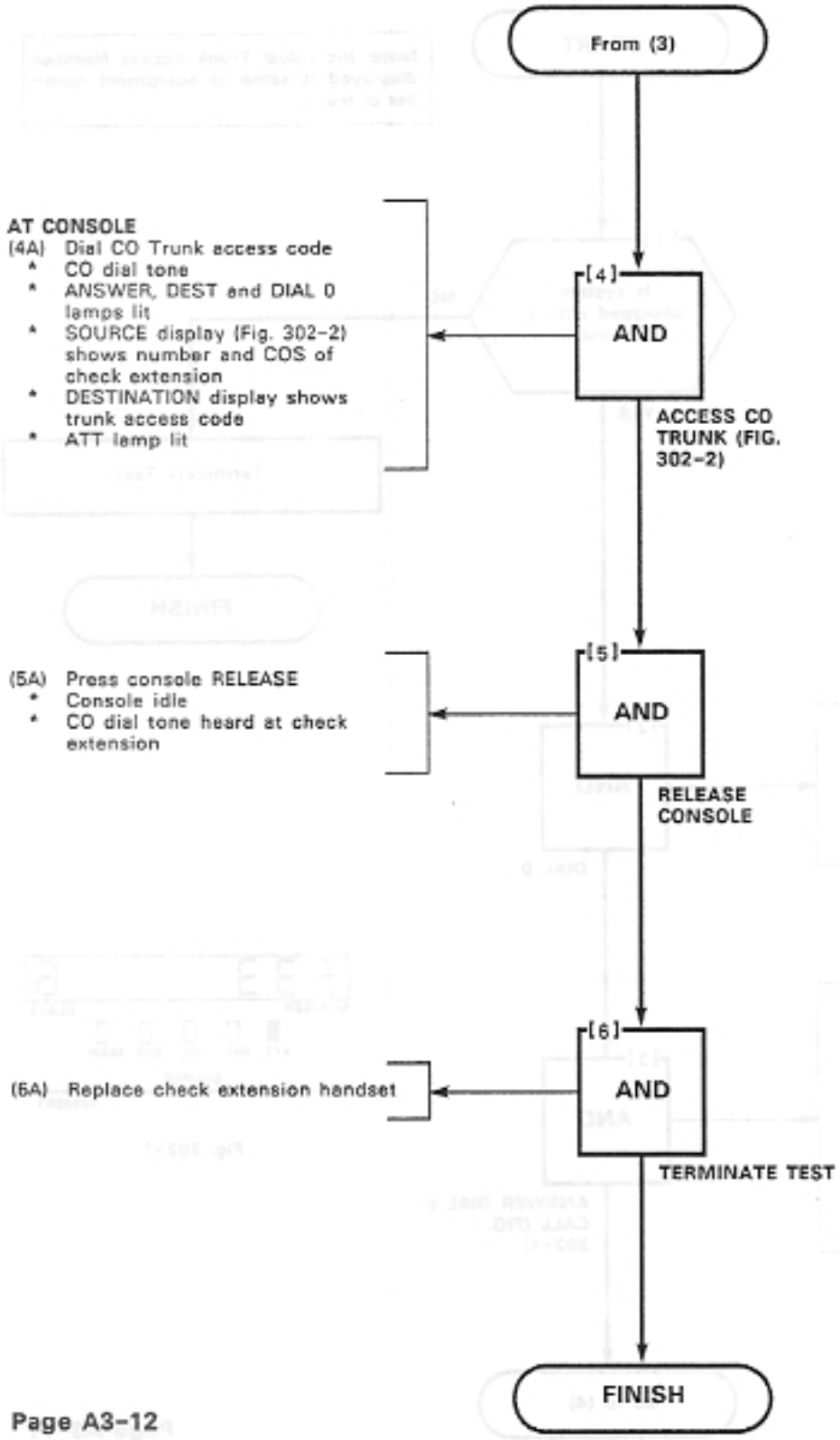


Fig. 302-1

EXTENDING INTERNAL CALLS
MAP215- 302
Issue 1, September 1983
Sheet 2 of 2



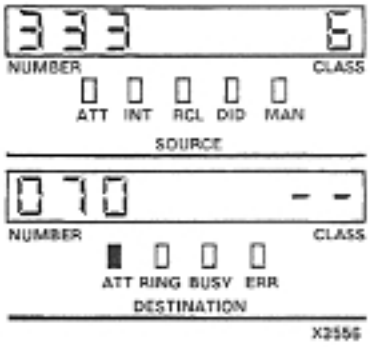
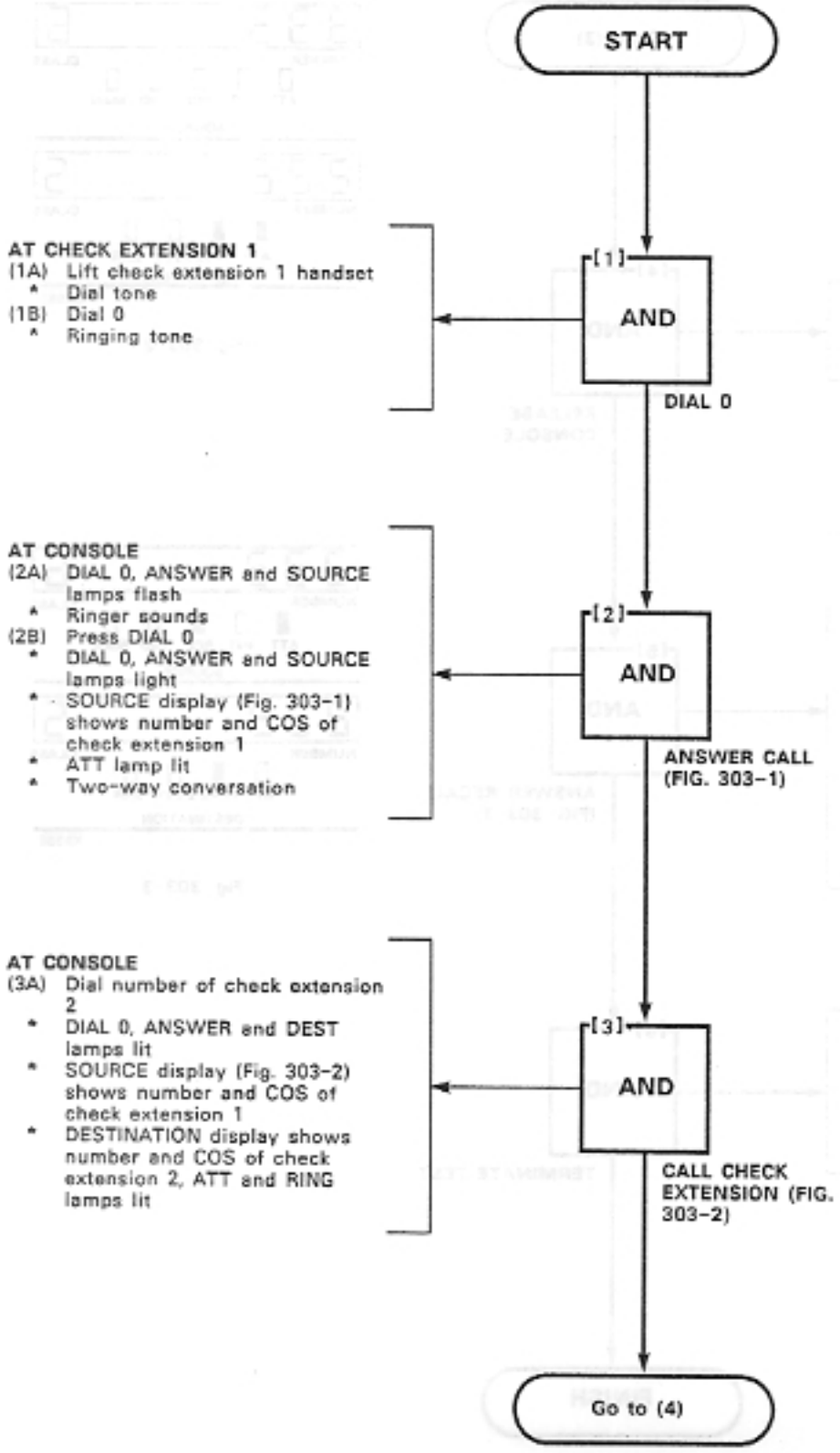


Fig. 302-2

ANSWERING RECALL
MAP215-303
Issue 1, September 1983
Sheet 1 of 2



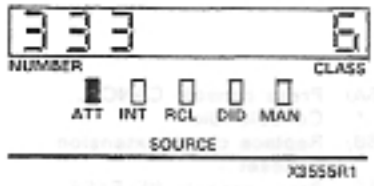


Fig. 303-1

ANSWERING RECALL
MAP215- 303
Issue 1, September 1983
Sheet 2 of 2

From (3)

[4]

AND

(4A) Check extension 2 rings
(4B) Press console RELEASE
* Console idle

RELEASE CONSOLE

[5]

AND

AT CONSOLE
(5A) After time out period (10, 20, 30 or 40 s)
* RCL and ANSWER lamps flash
* Ringer sounds
(5B) Press RECALL
* RCL, ANSWER and SOURCE lamps light
* SOURCE display (Fig. 303-3) shows the number and COS of check extension 1
* ATT and RCL lamps lit
* DESTINATION display shows number and COS of check extension 2

ANSWER RECALL (FIG. 303-3)

[6]

AND

(6A) Press console CANCEL
* Console idle
(6B) Replace check extension handset 1
(6C) Press console RELEASE
* Console idle

TERMINATE TEST

FINISH

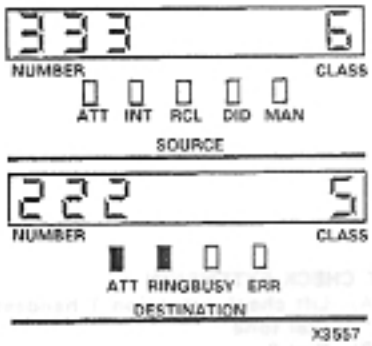


Fig. 303-2

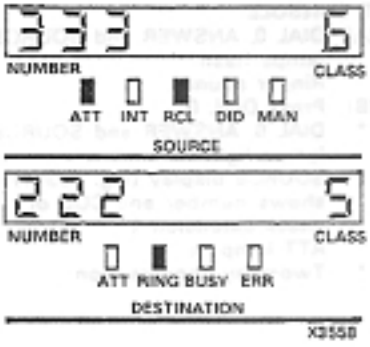


Fig. 303-3

OVERRIDE
MAP215-304
Issue 1, September 1983
Sheet 1 of 2

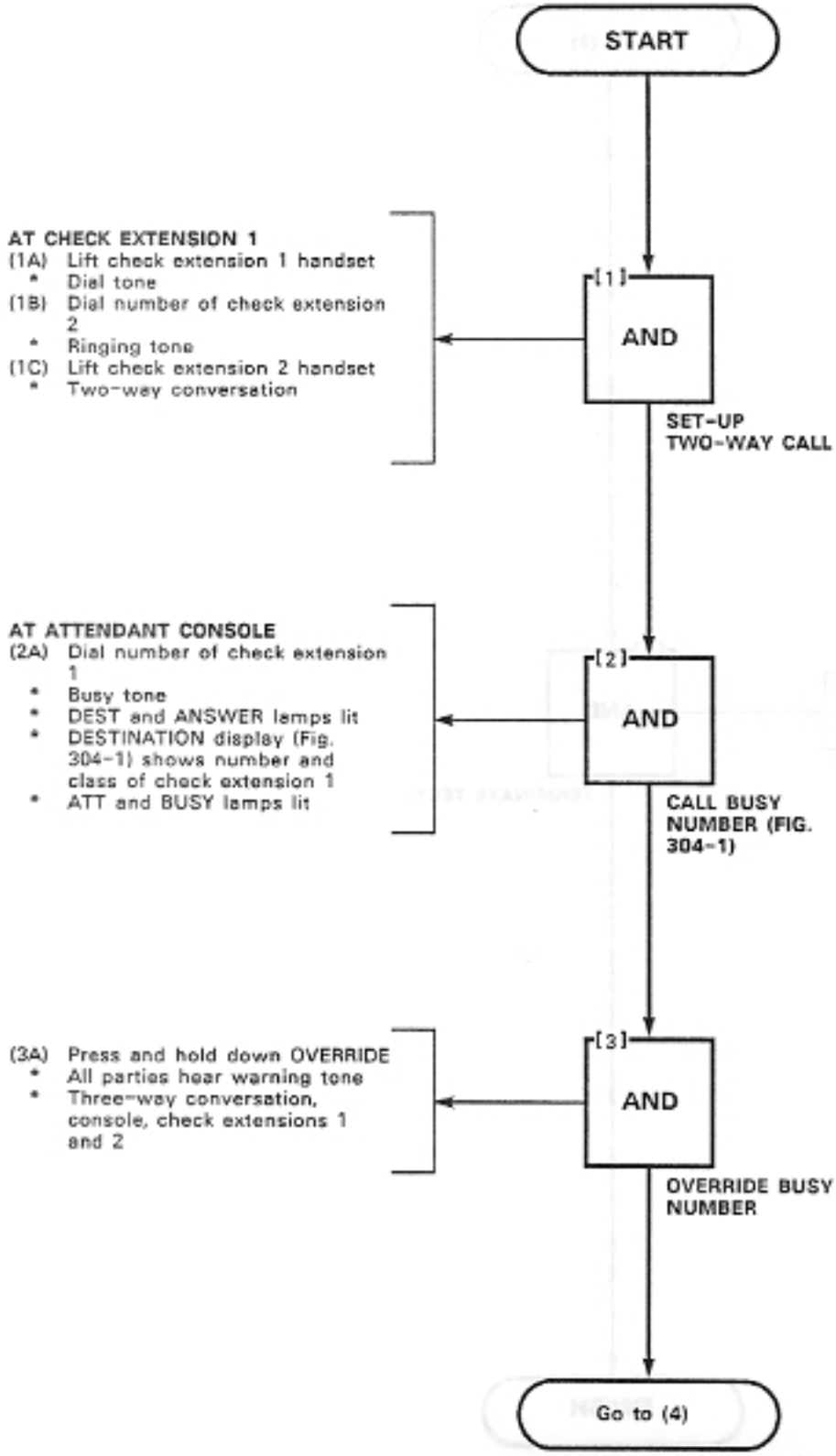
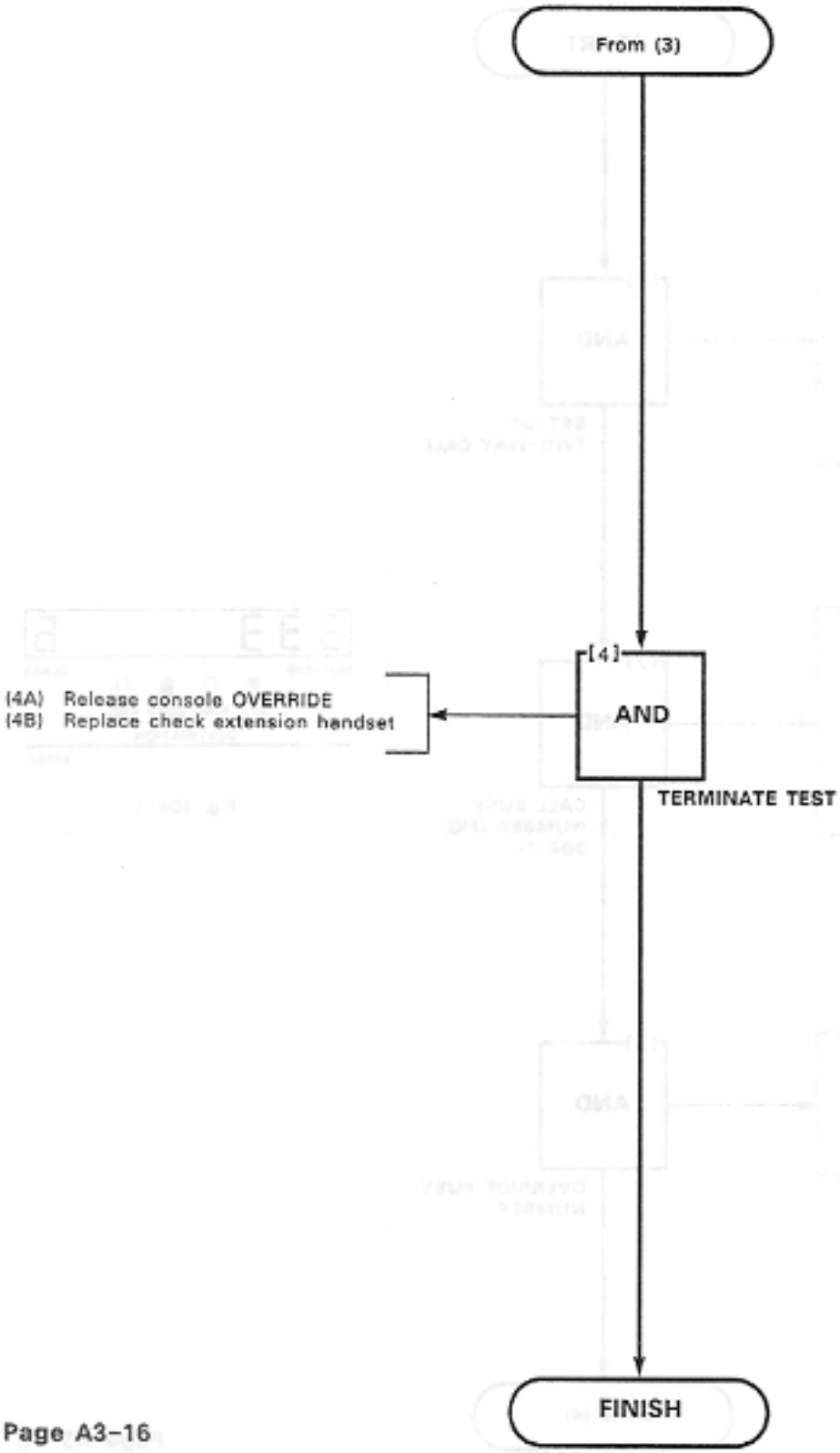


Fig. 304-1

OVERRIDE
MAP215- 304
Issue 1, September 1983
Sheet 2 of 2



FLEXIBLE NIGHT SERVICE
MAP215-305
Issue 1, September 1983
Sheet 1 of 2

Note: Individual Trunk Access Number displayed is the equipment number of the trunk.

START

AT CONSOLE
(1A) Dial ^, 3
* ANSWER and DEST lamps lit
(1B) Dial Individual Trunk access code (equipment number)
* ANSWER and DEST lamps lit
* DESTINATION display shows individual trunk (equipment) number

[1] AND

ACCESS NIGHT SERVICE

(2A) Press NIGHT 1
* ANSWER and DEST lamps lit
* SOURCE display shows individual Trunk Equipment Number and Night Service assignment
* DESTINATION display shows existing extension or Hunt Group assignment
(2B) Dial number of check extension 1
* ANSWER and DEST lamps lit
* SOURCE display (Fig. 305-1) shows individual trunk number and night assignment
* DESTINATION display shows number of check extension 1
(2C) Press RELEASE

[2] AND

ASSIGN NIGHT SERVICE (FIG. 305-1)

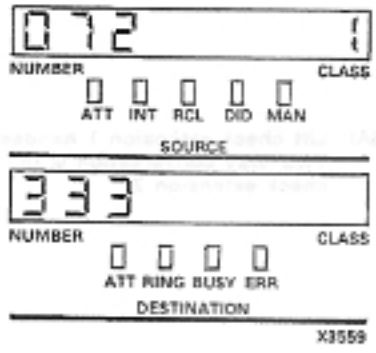


Fig. 305-1

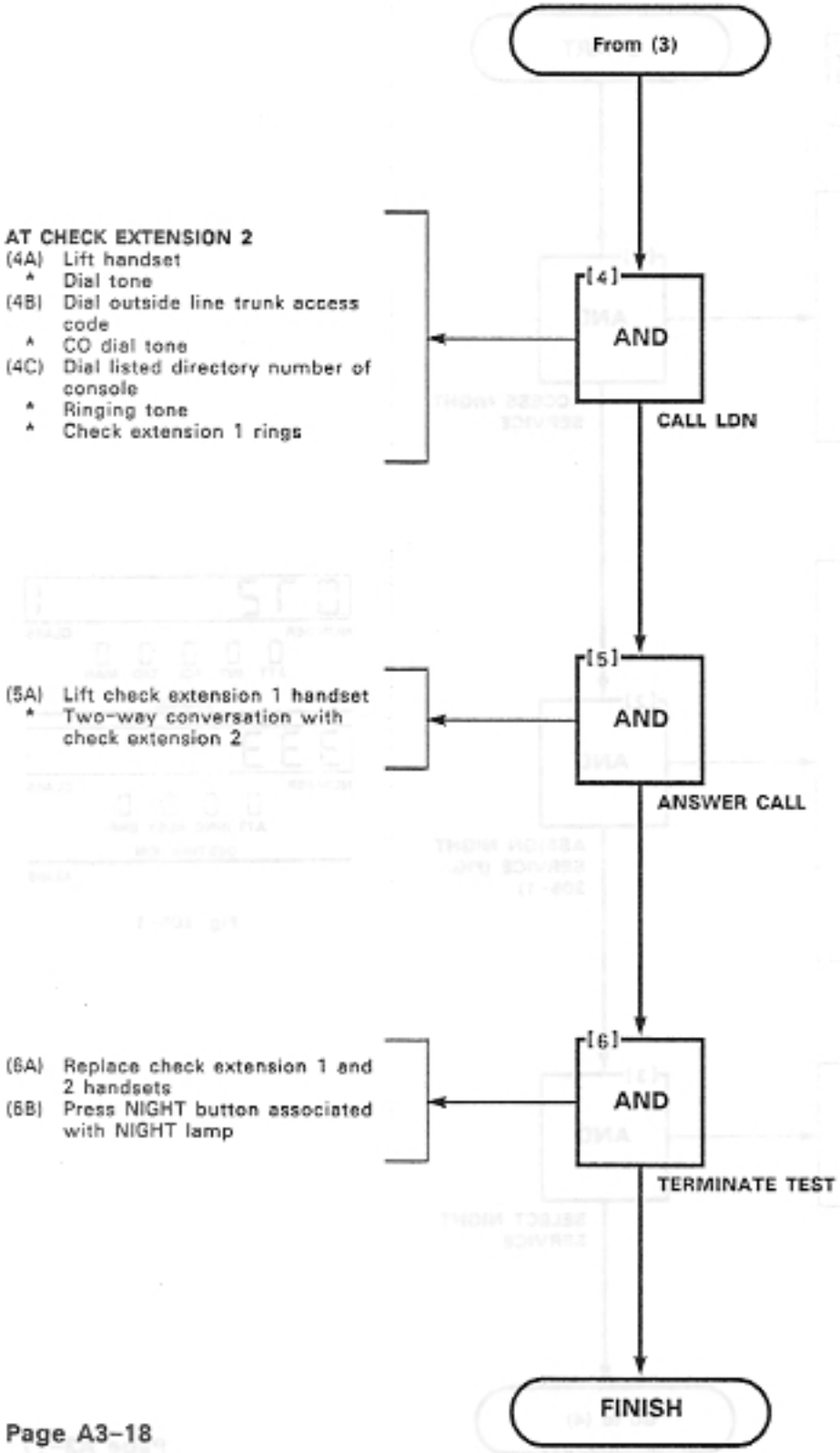
(3A) Press NIGHT 1 button selected in step (2A)
* NIGHT lamp lit
* Night trunk is connected to check extension

[3] AND

SELECT NIGHT SERVICE

Go to (4)

FLEXIBLE NIGHT SERVICE
MAP215- 305
Issue 1, September 1983
Sheet 2 of 2



TRUNK BUSY OPERATION
MAP215-306
Issue 1, September 1983
Sheet 1 of 2

Note: Individual Trunk Access Number displayed is same as equipment number of trunk.

START

AT CONSOLE
(1A) Dial *, 9 individual Trunk number, *
* ANSWER and DEST lamps light
* Dial tone returned if trunk is free
(1B) Press RELEASE

[1] AND

MAKE TRUNK BUSY (FIG. 306-1)

(2A) Dial *, 9 individual Trunk Number dialed in (1A) + *
* ANSWER and DEST lamps lit
* DESTINATION display shows number dialed, ATT lit (Fig. 306-1)
* Busy tone
(2B) Press RELEASE

[2] AND

CHECK TRUNK-BUSY

(3A) Dial *, 9 Individual Trunk Number, number sign
* ANSWER and DEST lamps lit
* DESTINATION display (Fig. 306-2) shows number dialed, ATT lit
(3B) Press RELEASE

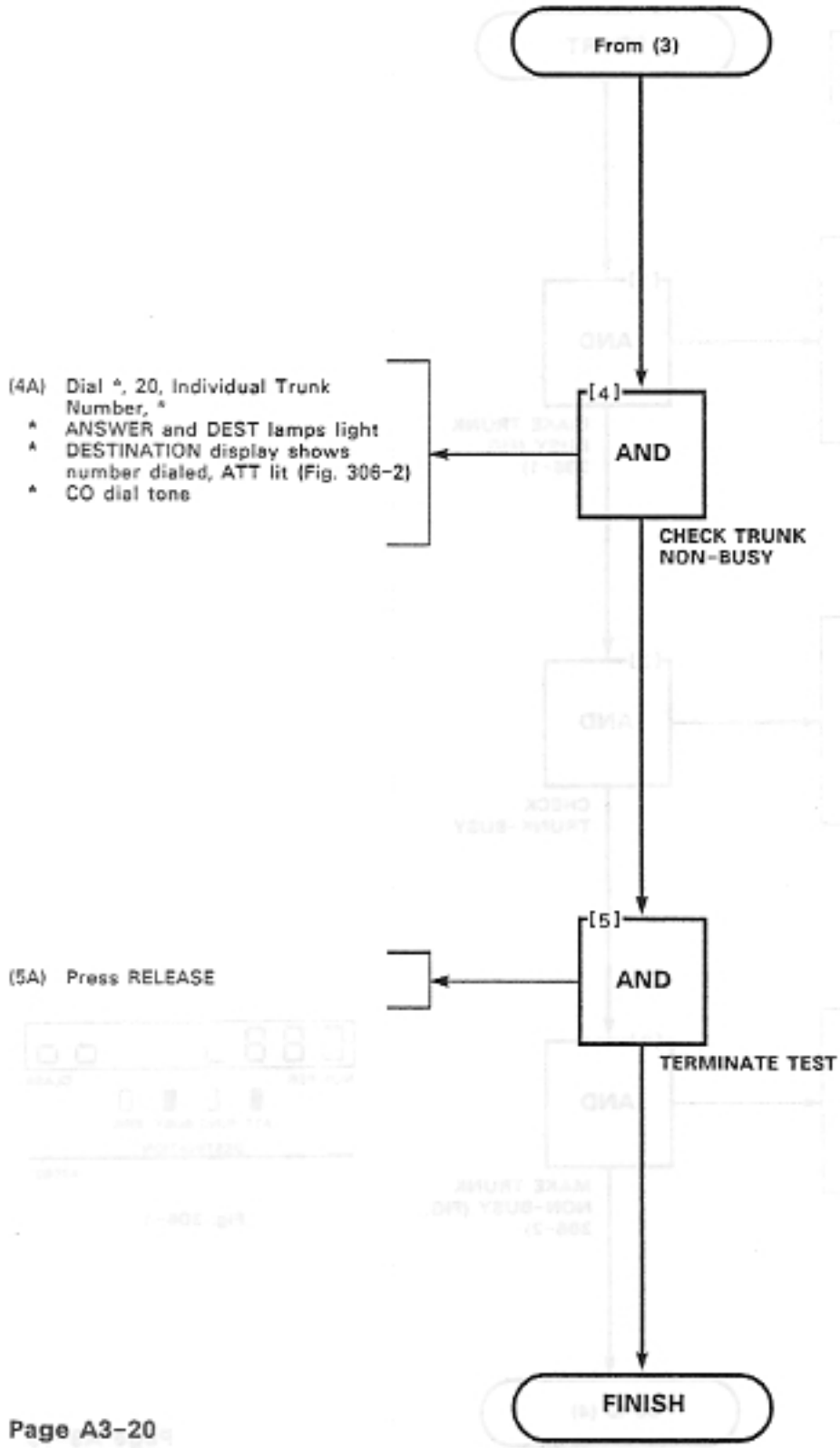
[3] AND

MAKE TRUNK NON-BUSY (FIG. 306-2)

Go to (4)

Fig. 306-1

TRUNK BUSY OPERATION
MAP215- 306
Issue 1, September 1983
Sheet 2 of 2



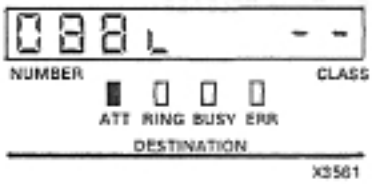


Fig. 306-2

TRUNK GROUP SUPERVISOR ACCESS
MAP215-307
Issue 1, September 1983
Sheet 1 of 2

START

AT SUPERVISOR CONSOLE
(1A) Dial *, 6, trunk group number, *
* ANSWER and DEST lamps lit
* DESTINATION display (Fig. 307-1) shows trunk group followed by L. TRUNK GROUP STATUS display (Fig. 307-2) shows trunk group supervisor access
(1B) Press RELEASE

[1] AND

MAKE TRUNK GROUP SUPERVISOR ACCESS (FIG. 307-1 AND FIG. 307-2)

Fig. 307-1

AT CHECK EXTENSION
(2A) Lift handset
(2B) Dial CO trunk access code
* Ringing tone
* Console rings
* 'Dial 0' and ANSWER lamps flash
* Call is intercepted to the console

[2] AND

INITIATE TRUNK CALL

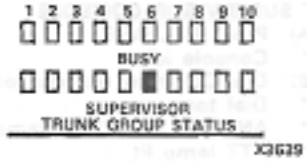


Fig. 307-2

AT SUPERVISOR CONSOLE
(3A) Press console 'Dial 0' key
* 'Dial 0' lamp lit
* Two-way conversation with check extension

[3] AND

ANSWER INTERCEPT

Go to (4)

TRUNK GROUP SUPERVISOR ACCESS
MAP215- 307
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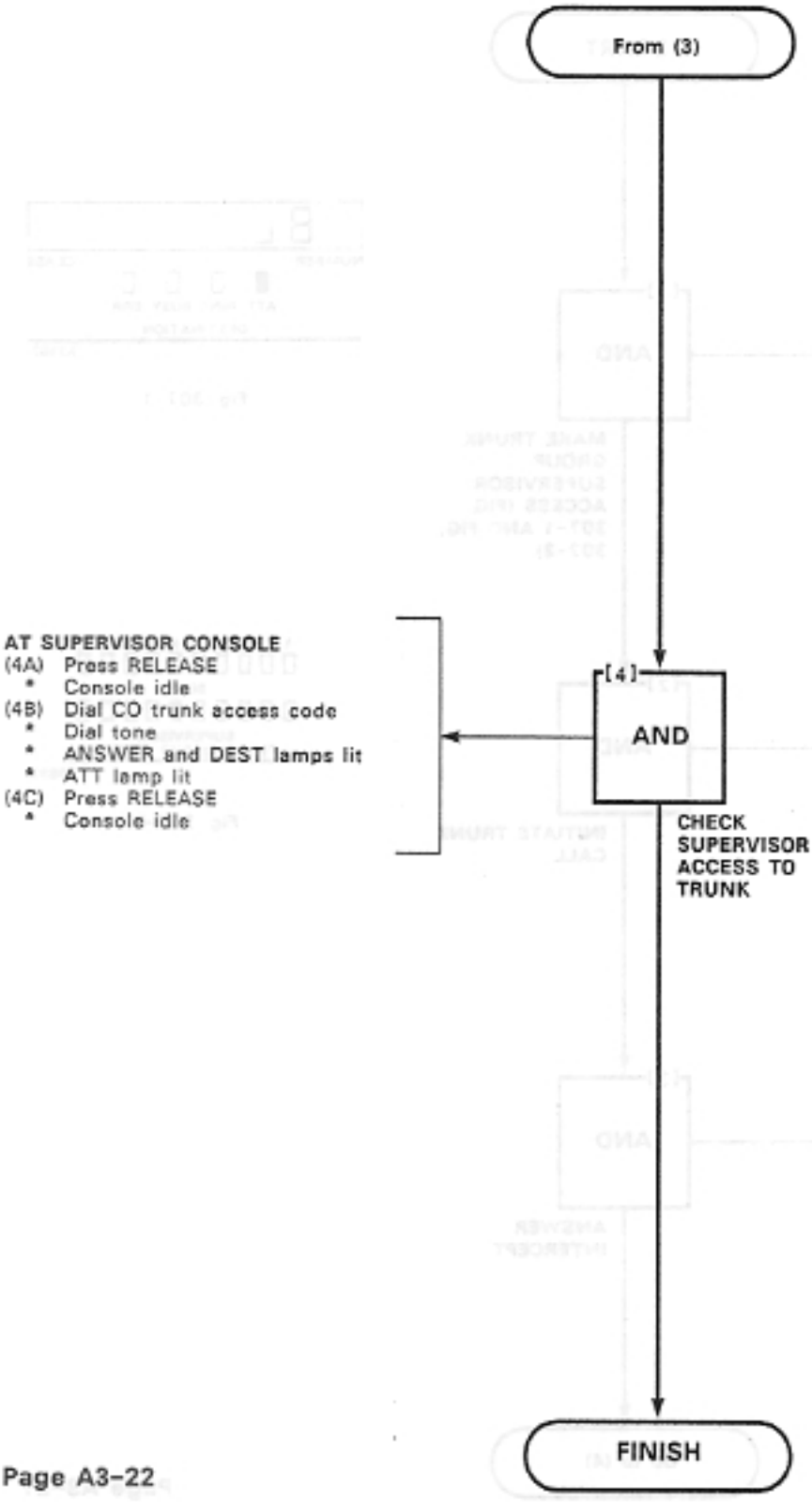

TRUNK GROUP DIAL ACCESS
MAP215-308
Issue 1, September 1983
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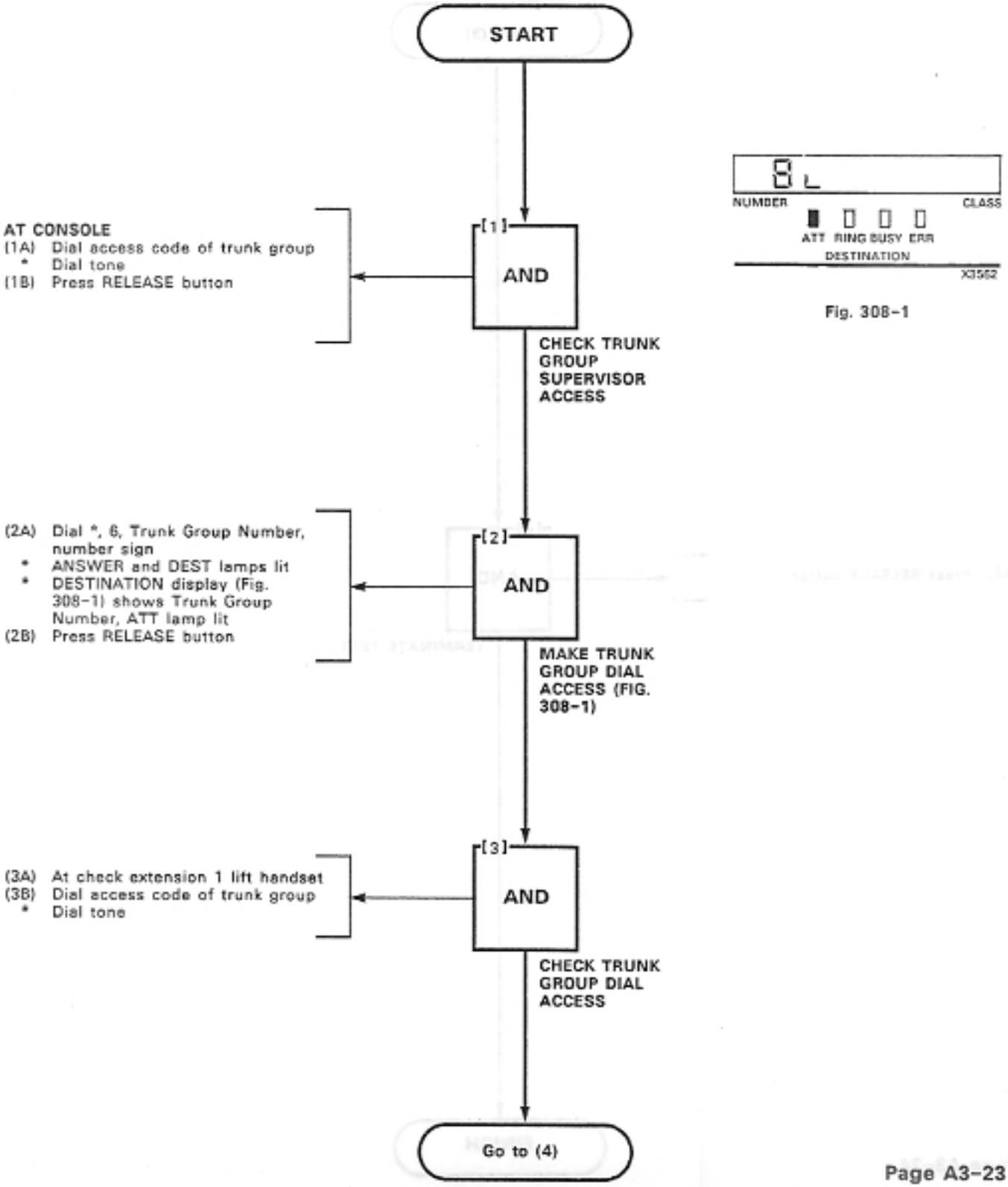

Fig. 308-1

TRUNK GROUP DIAL ACCESS
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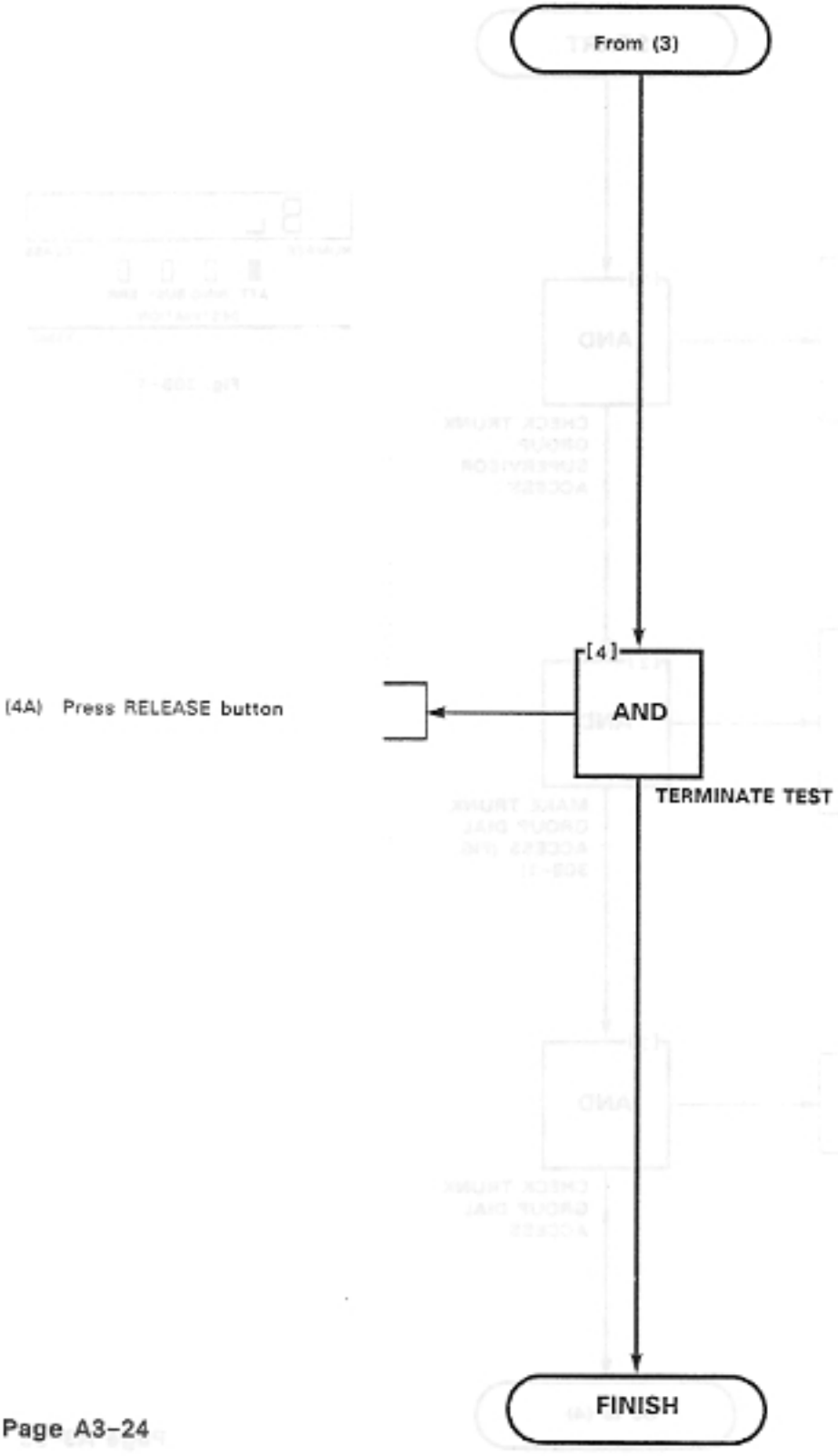
Sheet 2 of 2



TEST TERMINATION
MAP215-309
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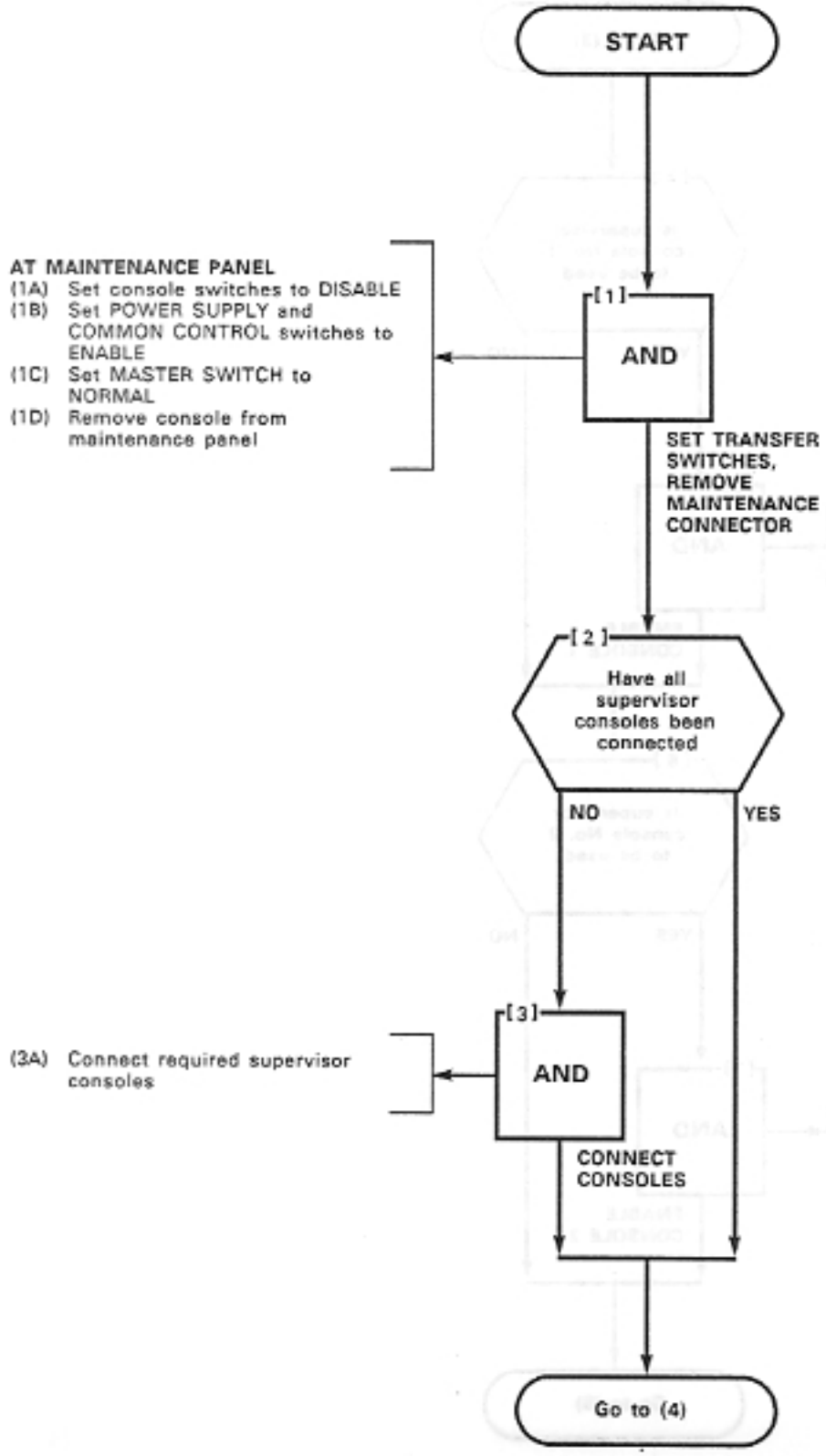

TEST TERMINATION
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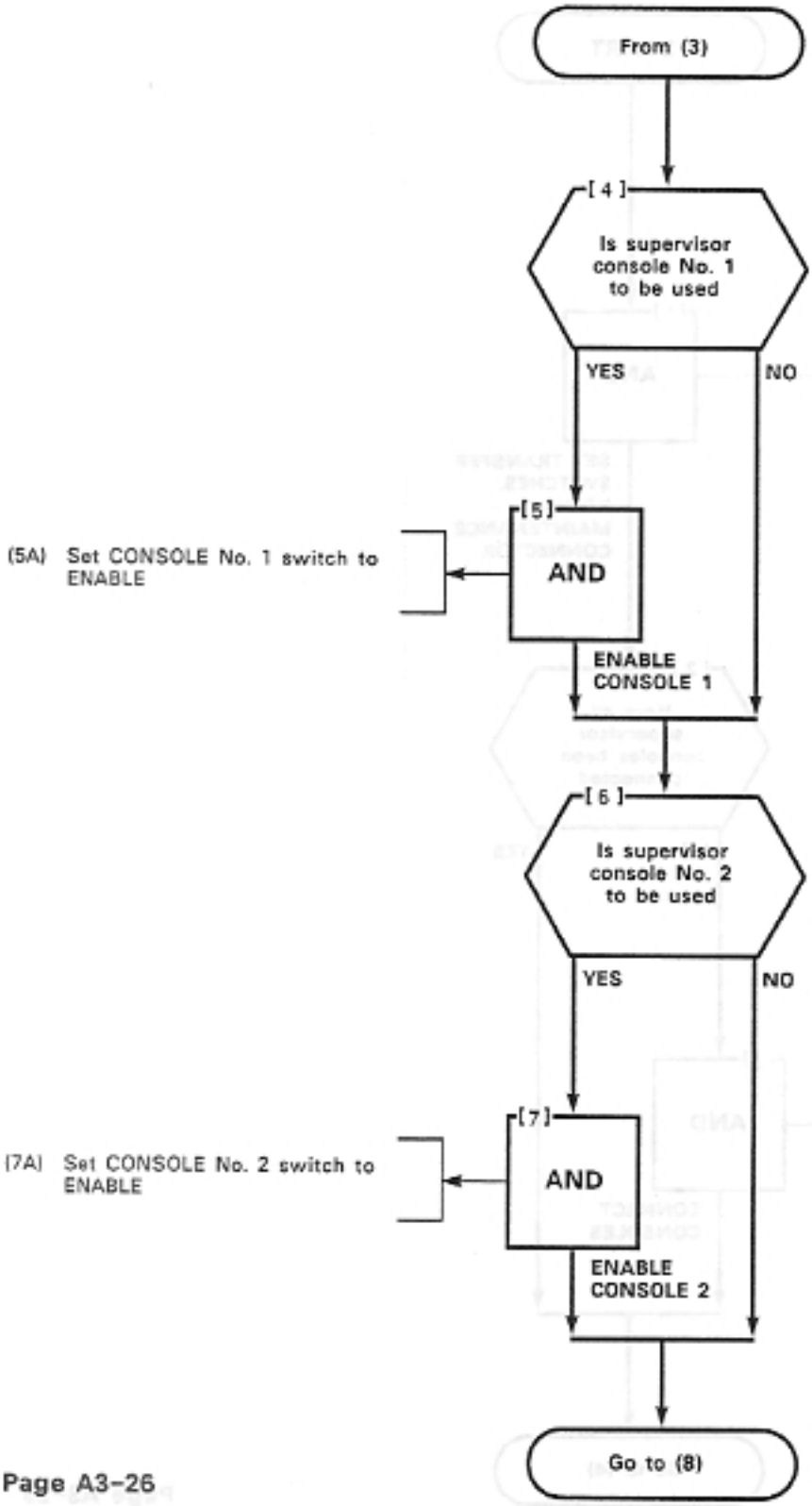

TEST TERMINATION
MAP215-309
Issue 1, September 1983
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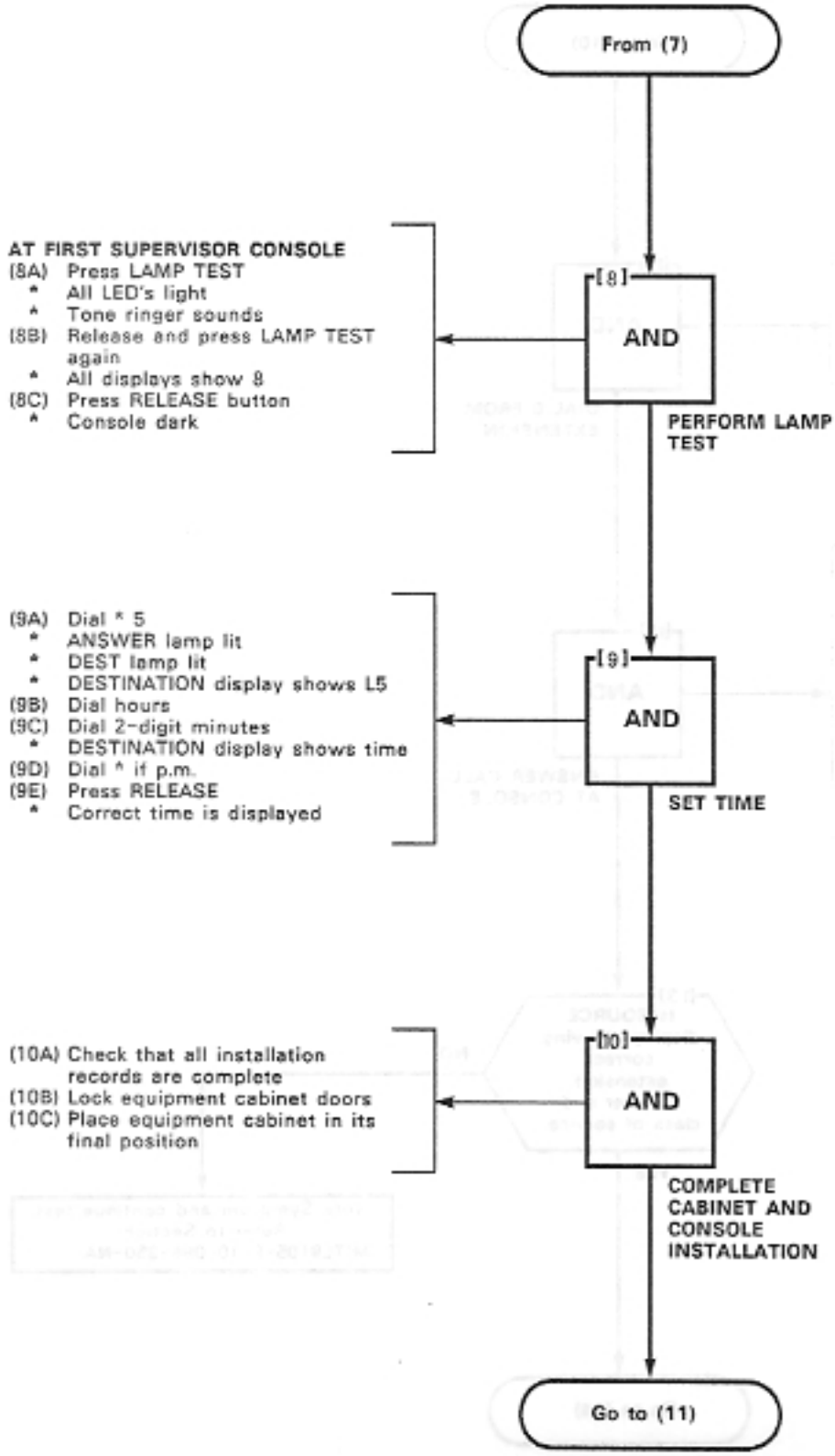

TEST TERMINATION
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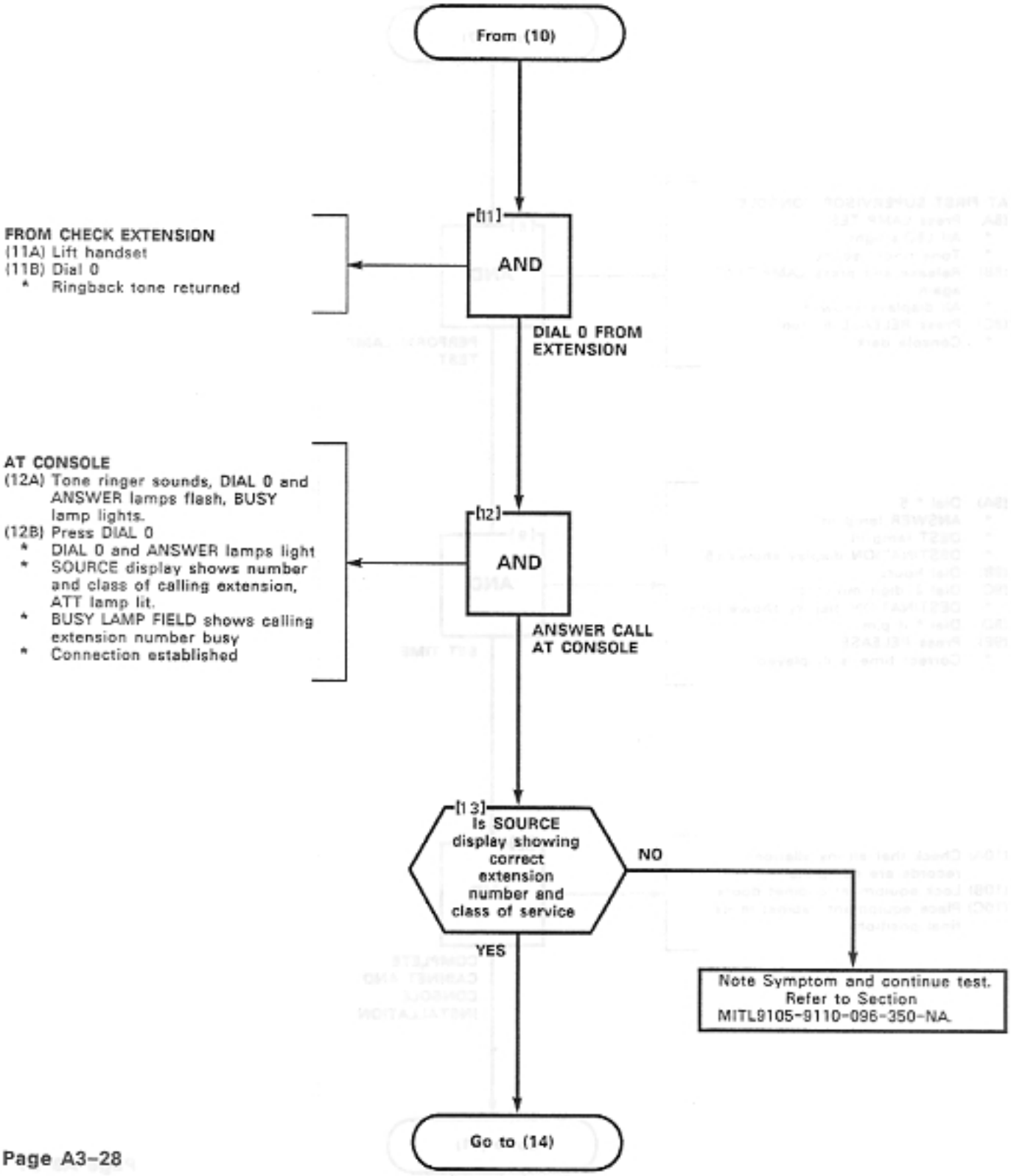

TEST TERMINATION
MAP215-309
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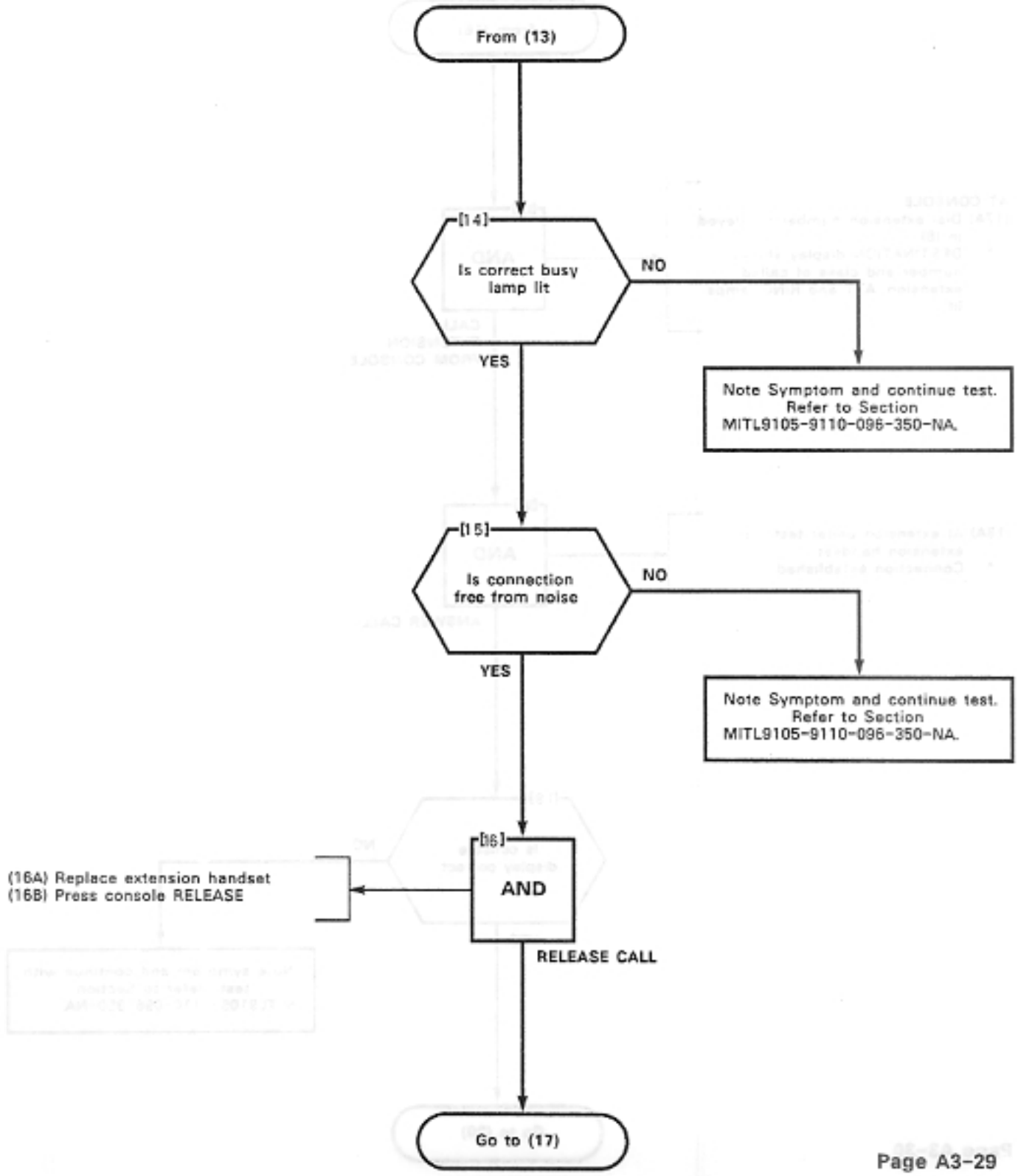

TEST TERMINATION
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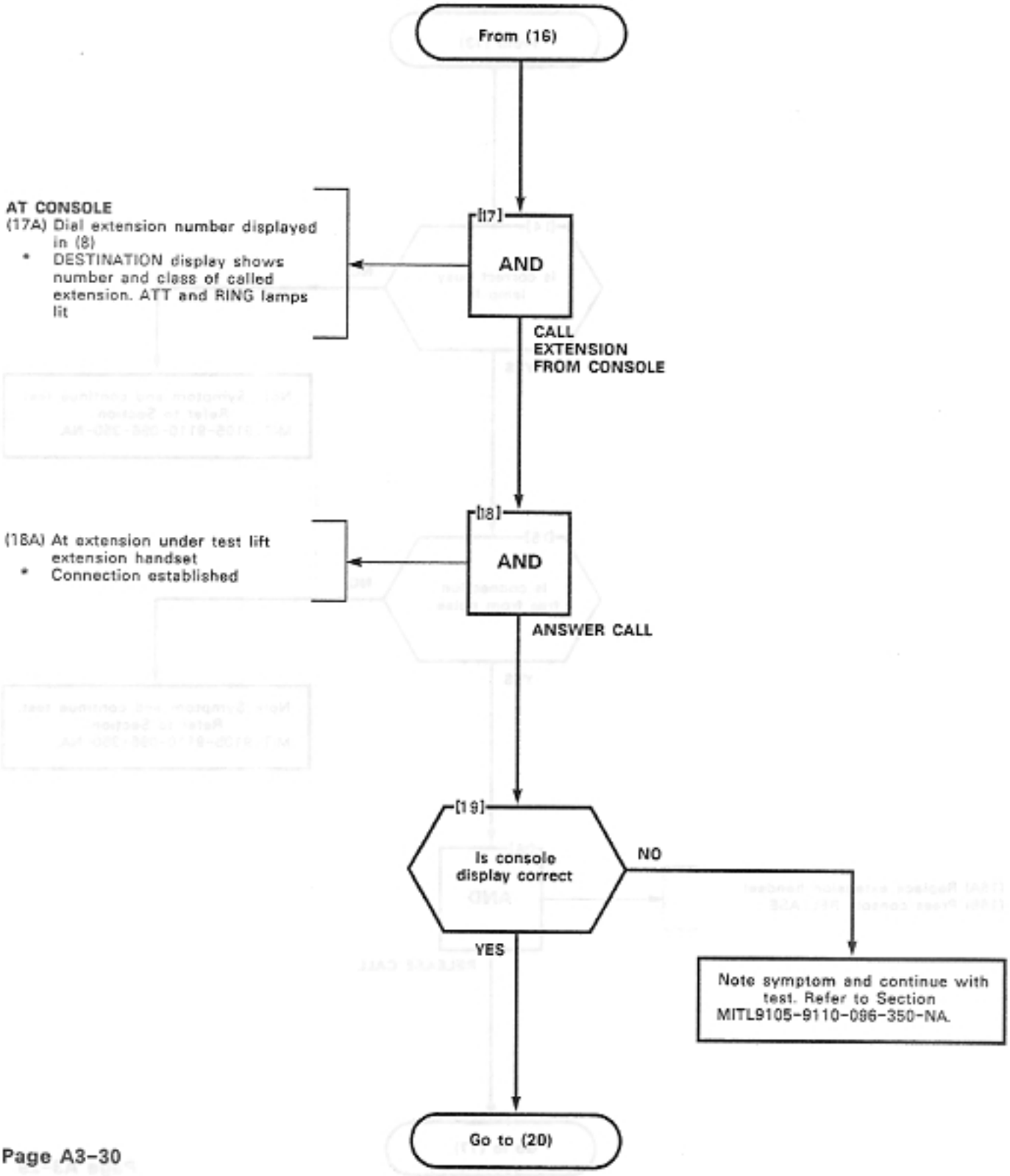
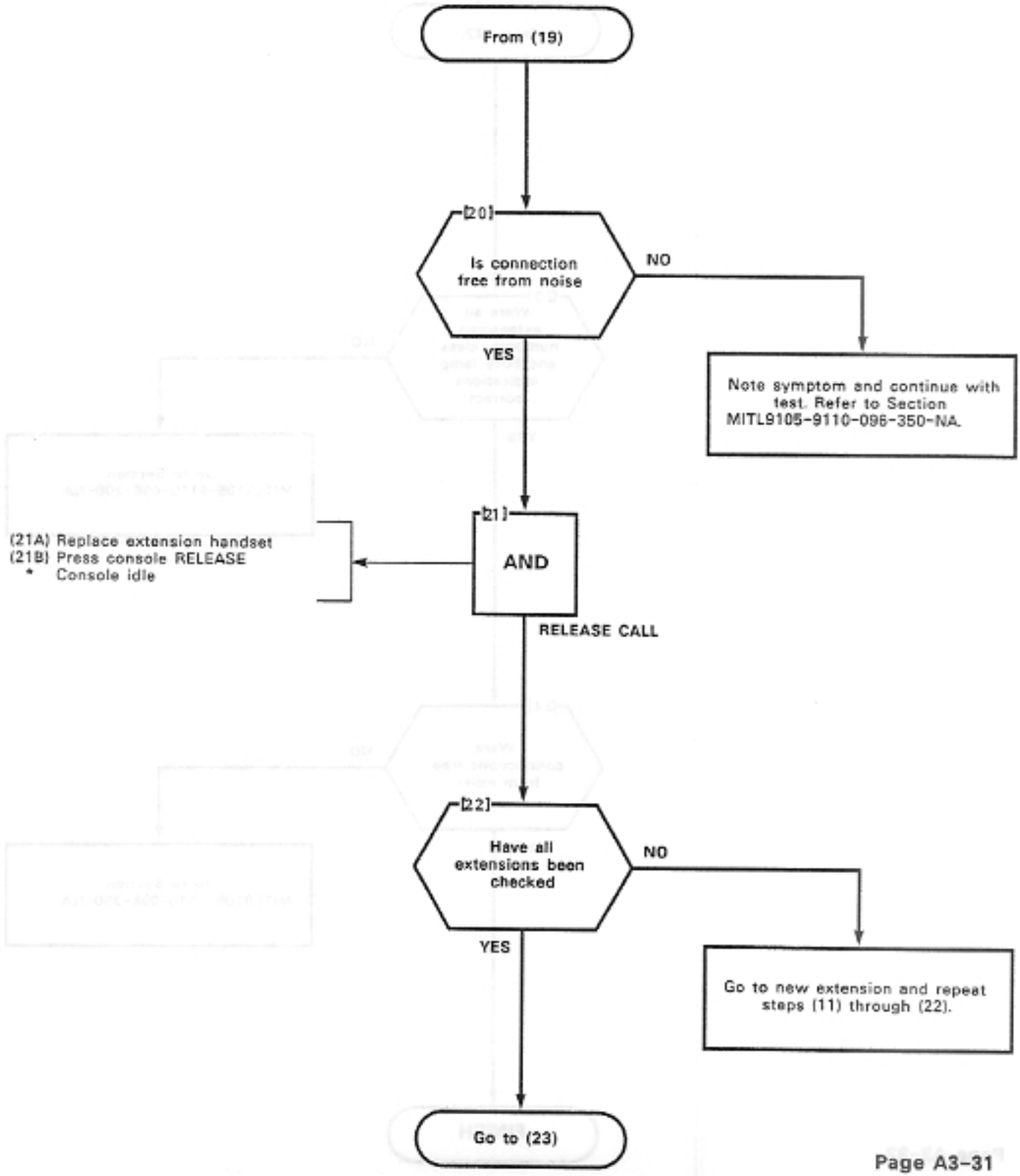


TEST TERMINATION
MAP215-309
Issue 1, September 1983
Sheet 7 of 8



TEST TERMINATION
MAP215- 309
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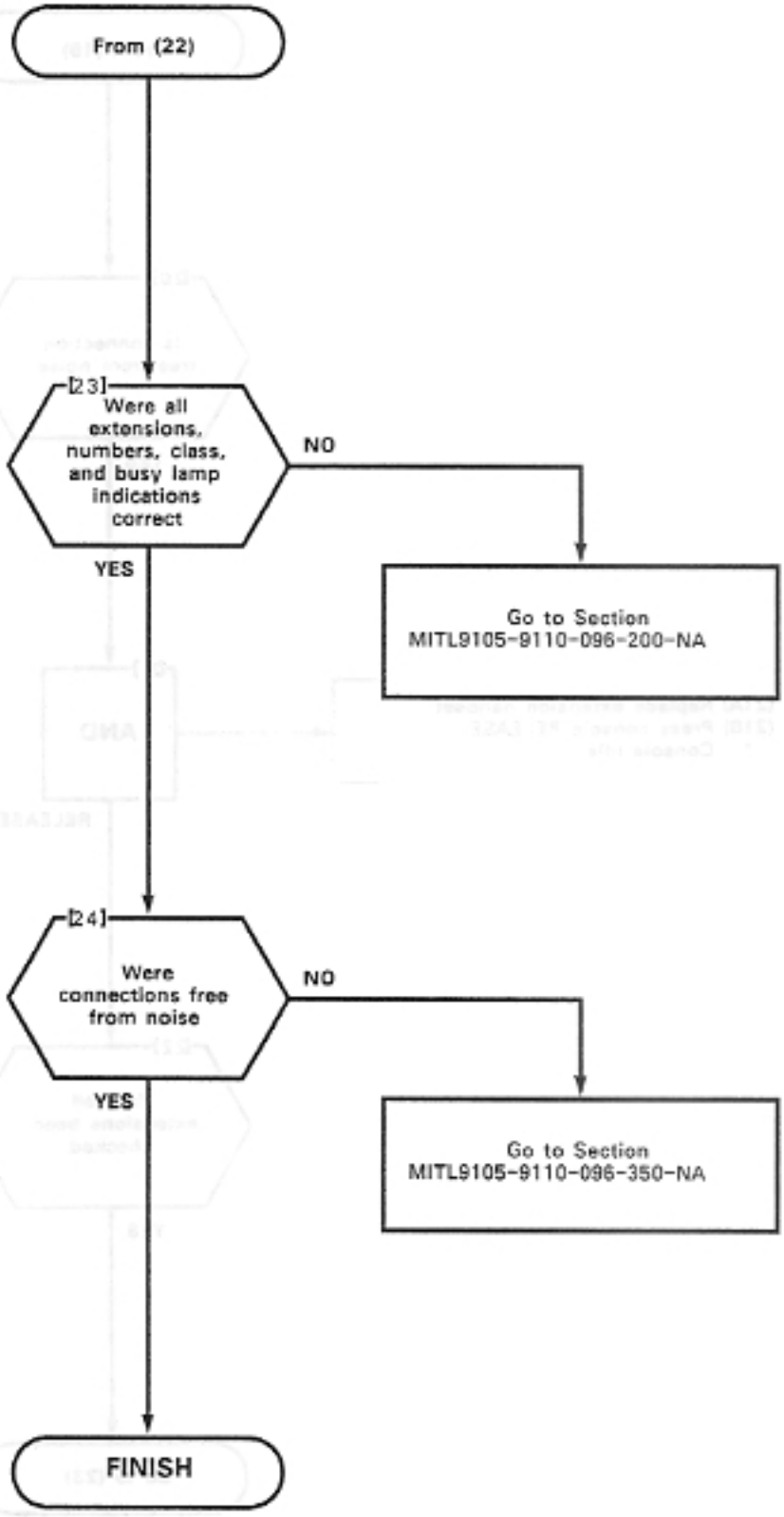

ANSWER INCOMING CO TRUNK CALL
MAP215-310
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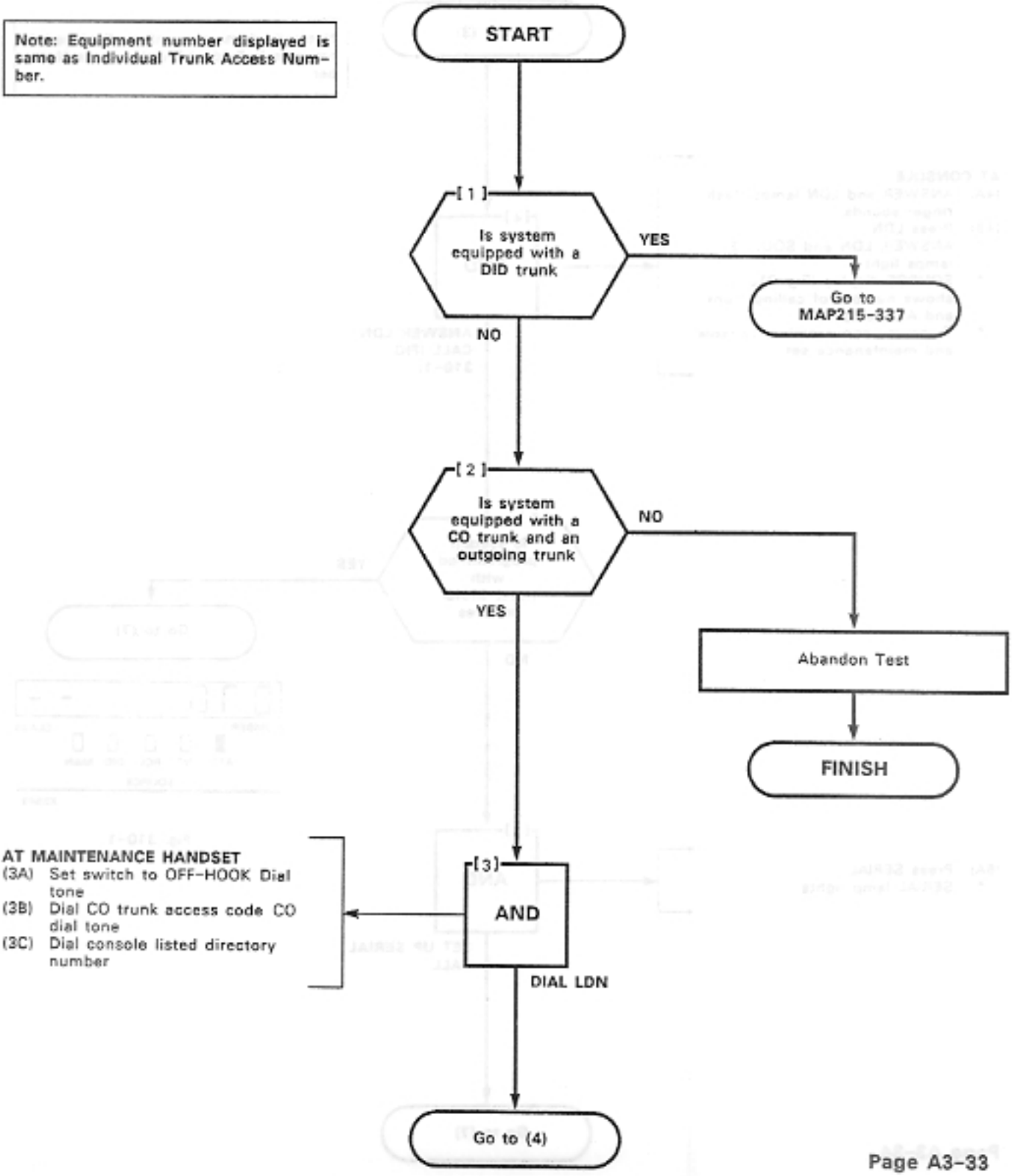
Note: Equipment number displayed is same as Individual Trunk Access Number.



ANSWER INCOMING CO TRUNK CALL
MAP215- 310
Issue 1, September 1983
Sheet 2 of 6

From (3)

Note: Equipment number displayed is same as Individual Trunk Access Number.

AT CONSOLE
(4A) ANSWER and LDN lamps flash, ringer sounds
(4B) Press LDN
* ANSWER, LDN and SOURCE lamps light
* SOURCE display (Fig. 310-1) shows number of calling trunk and ATT lamp lit
* Two-way conversation, console and maintenance set

[4] AND

ANSWER LDN CALL (FIG. 310-1)

[5] Is system programmed with Hotel-Motel features

YES → Go to (7)

NO

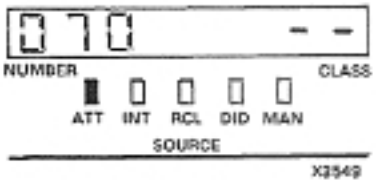


Fig. 310-1

[6] AND

(6A) Press SERIAL
* SERIAL lamp lights

SET UP SERIAL CALL

Go to (7)

ANSWER INCOMING CO TRUNK CALL
MAP215-310
Issue 1, September 1983
Sheet 3 of 6

Note: Equipment number displayed is same as Individual Trunk Access Number.

From (6)

AT CONSOLE
(7A) Dial number of check extension
- ANSWER, LDN, and DEST lamps lit
- SOURCE display (Fig. 310-2) shows the equipment number of the calling trunk
- DESTINATION display shows the number and COS of the check extension
- ATT and RING lamps lit

[7] AND

EXTEND CALL TO TEST STATION (FIG. 310-2)

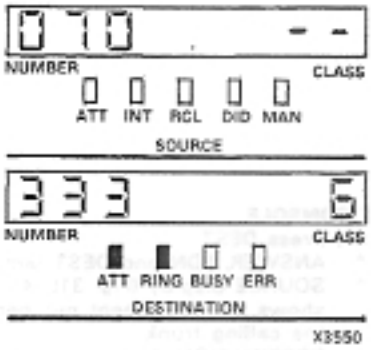


Fig. 310-2

AT CHECK EXTENSION
(8A) Lift check extension handset
- Two-way conversation with console

[8] AND

ANSWER CALL

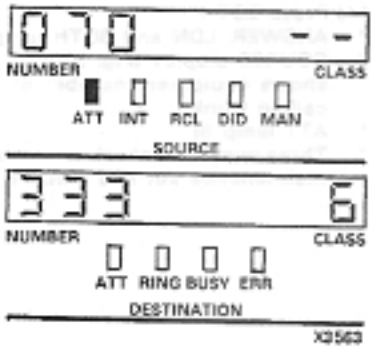


Fig. 310-3

AT CONSOLE
(9A) Press SOURCE
- ANSWER, LDN and SOURCE lamps lit
- SOURCE display (Fig. 310-3) shows the number of the calling trunk ATT lamp lit
- DESTINATION display shows number and COS of check extension
- Two-way private call with maintenance set

[9] AND

SPLIT CALL TO SOURCE (FIG. 310-3)

Go to (10)

ANSWER INCOMING CO TRUNK CALL
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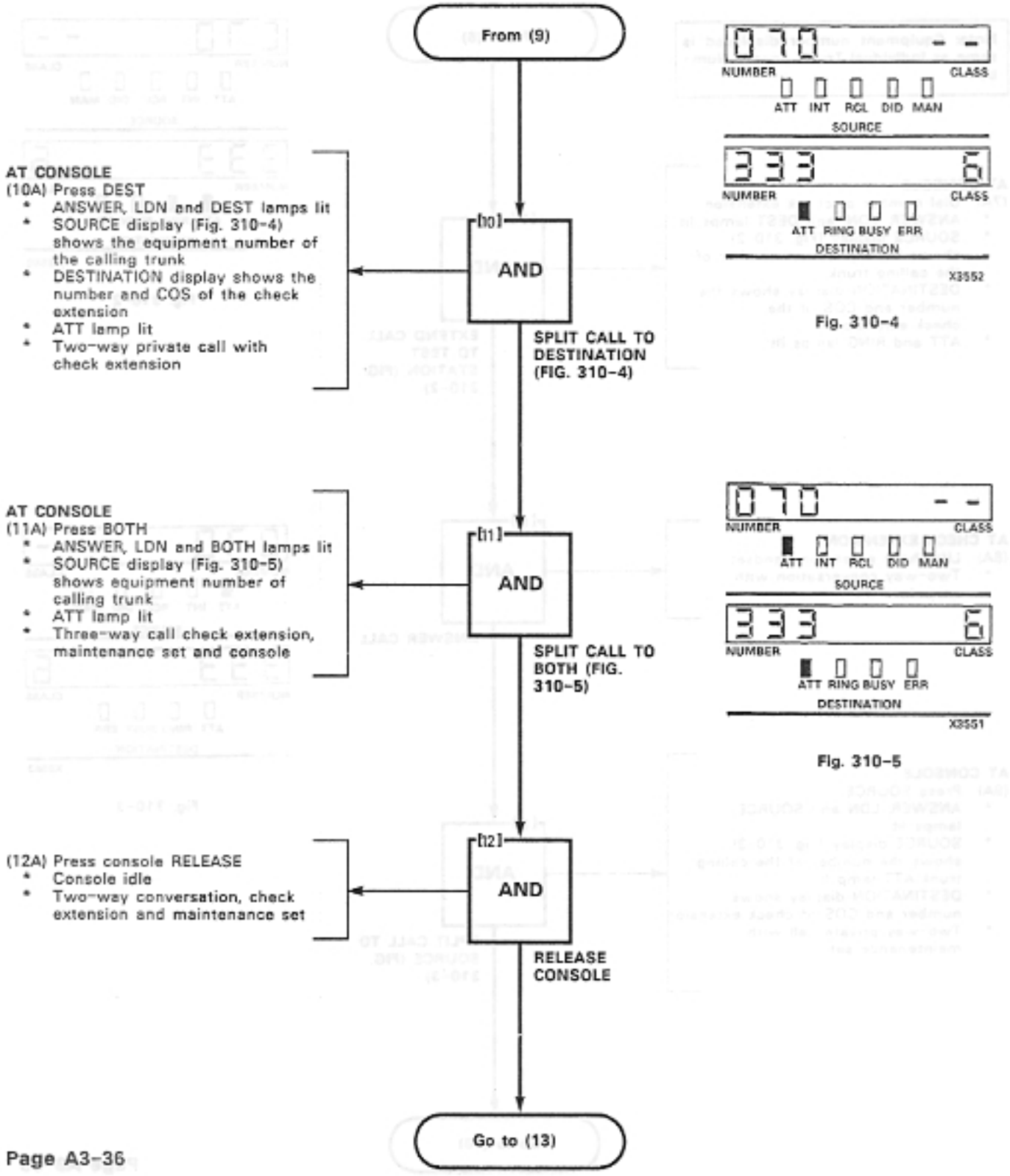

Fig. 310-4

Fig. 310-5

ANSWER INCOMING CO TRUNK CALL
MAP215-310
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Sheet 5 of 6

From (12)

[13] Is system programmed with Hotel-Motel features

NO → Go to (15)

YES

[14] AND

(14A) Replace check extension handset
(14B) Set maintenance set switch to ON-HOOK

TERMINATE CALL

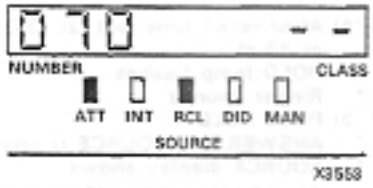

Fig. 310-6

[15] AND

(15A) Replace check extension handset
* Console ringer sounds
* ANSWER, LDN, RCL lamps flash

(15B) Press console RELEASE
* SERIAL CALL, SOURCE, ANSWER, LDN and RCL lamps light
* SOURCE display (Fig. 310-6) shows the equipment number of the calling trunk
* Two-way conversation, console and check extension

RETURN CALL TO CONSOLE (FIG. 310-6)

Go to (16)

ANSWER INCOMING CO TRUNK CALL
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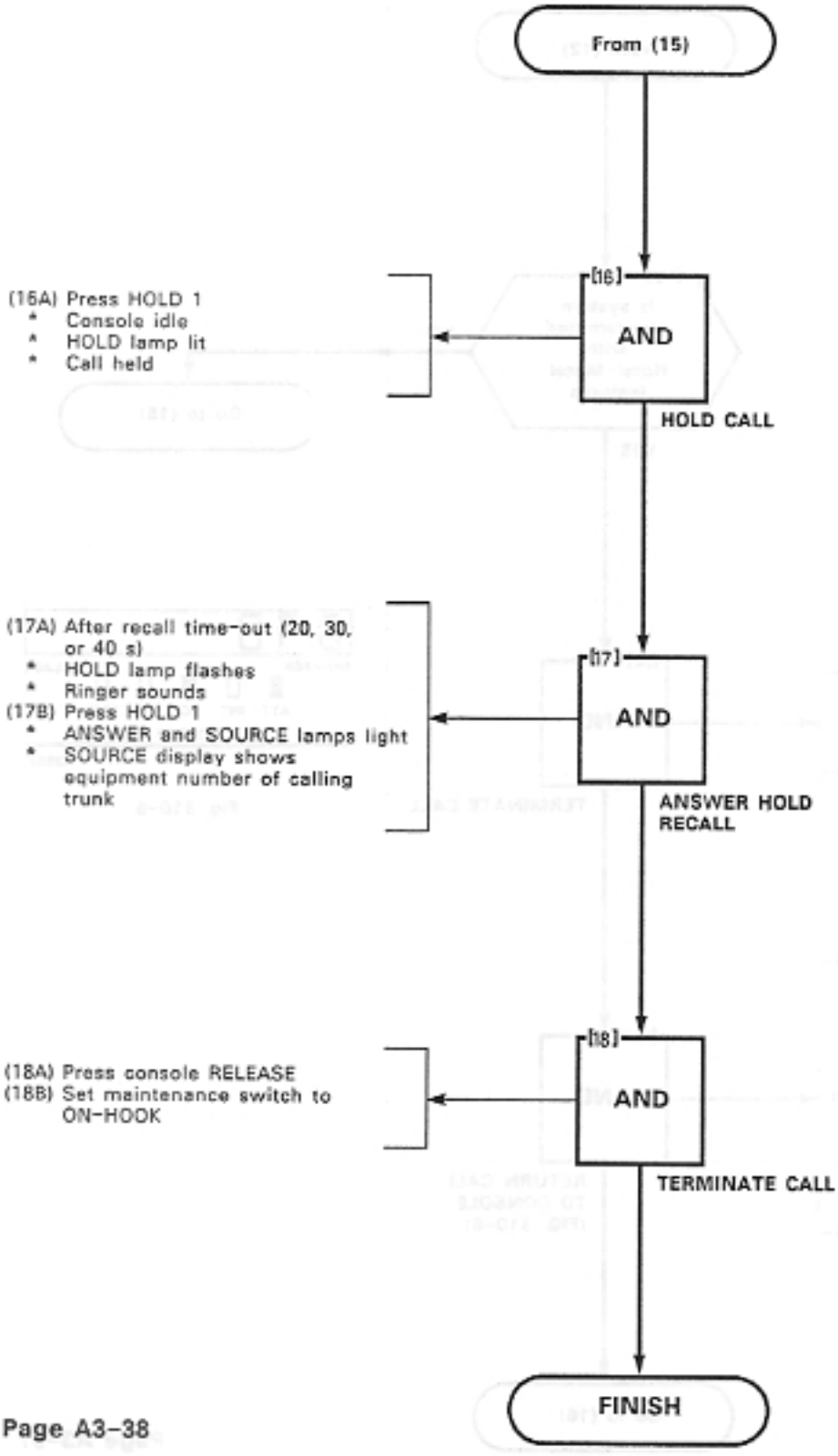


SUPERVISOR DO NOT DISTURB
MAP215-311
Issue 1, September 1983
Sheet 1 of 2

START

Note 1:
Ring is given in substep (2B) if System Option 138 is selected. Otherwise re-order tone is given and remainder of (2) substeps are omitted.

[1] AND

AT CONSOLE
(1A) Press GUEST ROOM button and dial check extension 1 number
(1B) Press DO NOT DSTB
* DO NOT DSTB lamp lit
(1C) Press RELEASE

ENABLE FEATURE FROM CONSOLE

[2] AND

AT CONSOLE
(2A) Check extension 1 lamp in Busy Lamp Field lit
AT CHECK EXTENSION 2
(2B) Lift handset
* Dial tone
(2C) Dial number of Check Extension 1
* Ringing tone (NOTE 1)
* Console rings
AT CONSOLE
(2D) ANSWER and DIAL 0 lamps flash
(2E) Press ANSWER
* SOURCE display shows number of Check Extension 2 and class
* ATT and INT lamps lit (Fig. 311-1)
(2F) Two-way conversation, Check Extension 2 and console
(2G) Press console RELEASE
(2H) Replace handset at Check Extension 2

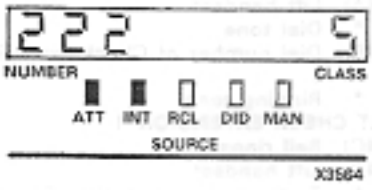


Fig. 311-1

VERIFY ENABLED FEATURE

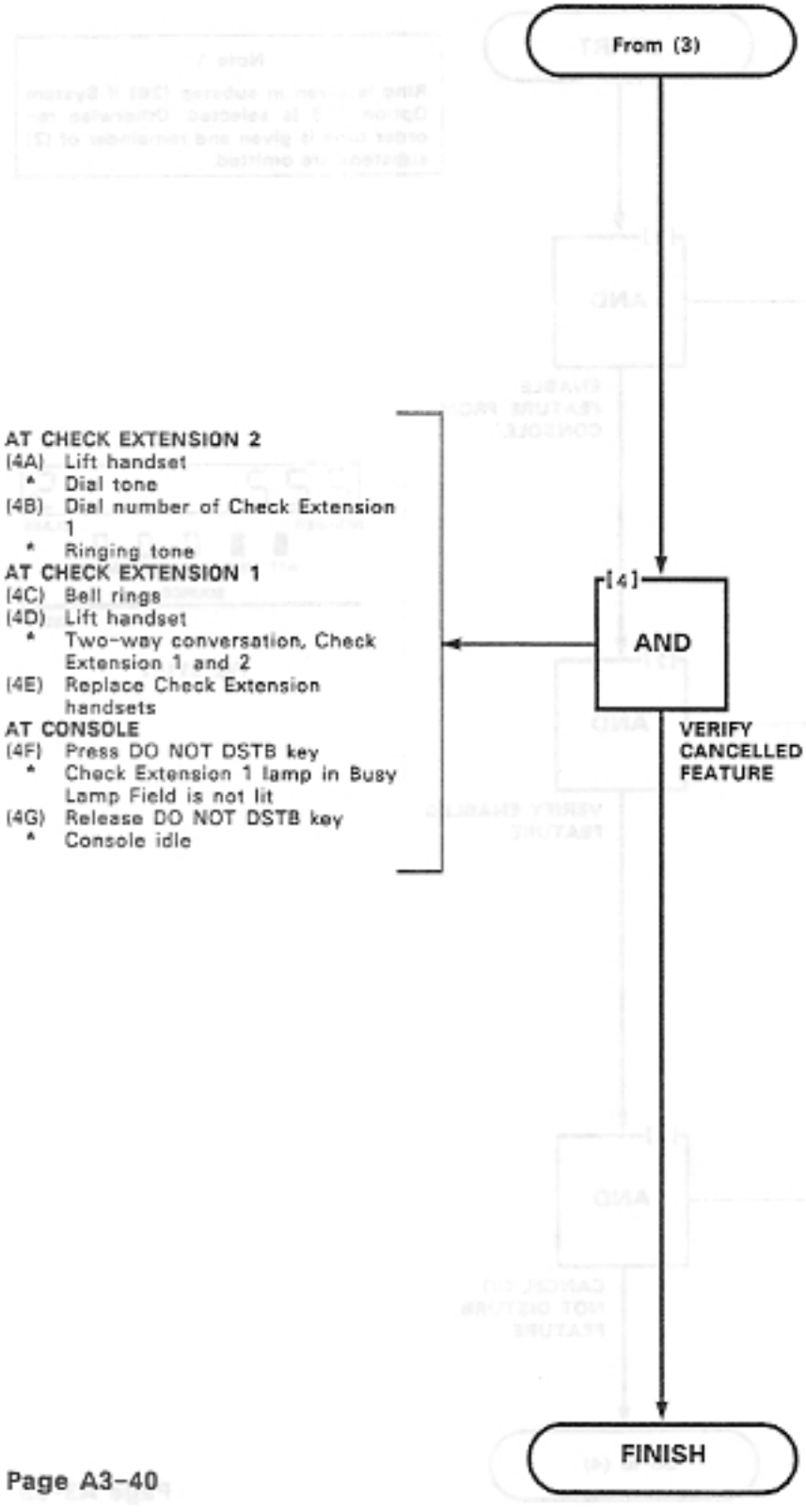
[3] AND

AT CHECK EXTENSION 1
(3A) Lift handset
* Dial tone
(3B) Dial Do Not Disturb access code followed by digit 2
(3C) Replace handset
AT CONSOLE
(3D) Check Extension 1 lamp in Busy Lamp Field goes off

CANCEL DO NOT DISTURB FEATURE

Go to (4)

SUPERVISOR DO NOT DISTURB
MAP215- 311
Issue 1, September 1983
Sheet 2 of 2



MESSAGE WAITING
MAP215-312
Issue 1, September 1983
Sheet 1 of 2

START

WARNING

Pressing MSGE WAIT when console is active with an extension may activate or remove the feature at the extension.

AT CHECK EXTENSION 1
(1A) Lift handset
* Dial tone
(1B) Dial number of check extension 2
* Ringing tone
AT CHECK EXTENSION 2
(1C) Bell rings
(1D) Lift handset, check extension 2
* Two-way conversation, check extensions 1 and 2

[1] AND

ESTABLISH EXTENSION-TO-EXTENSION CALL

AT CONSOLE
(2A) Dial number of check extension 1
* Busy tone
* DESTINATION display shows number of check extension 1 and class of service
* ATT and BUSY lamps lit
(2B) Press MSGE WAIT
* MSGE WAIT lamp lit
(2C) Press RELEASE
* Console idle

[2] AND

SET MESSAGE WAIT FACILITY FROM CONSOLE

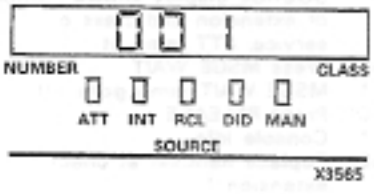


Fig. 312-1

AT CONSOLE
(3A) Press MSGE WAIT
* SOURCE display shows number of extensions with messages waiting, Fig. 312-1
(3B) Release MSGE WAIT
* Console idle

[3] AND

DISPLAY ROOMS WITH MESSAGES WAITING

Go to (4)

MESSAGE WAITING
MAP215- 312
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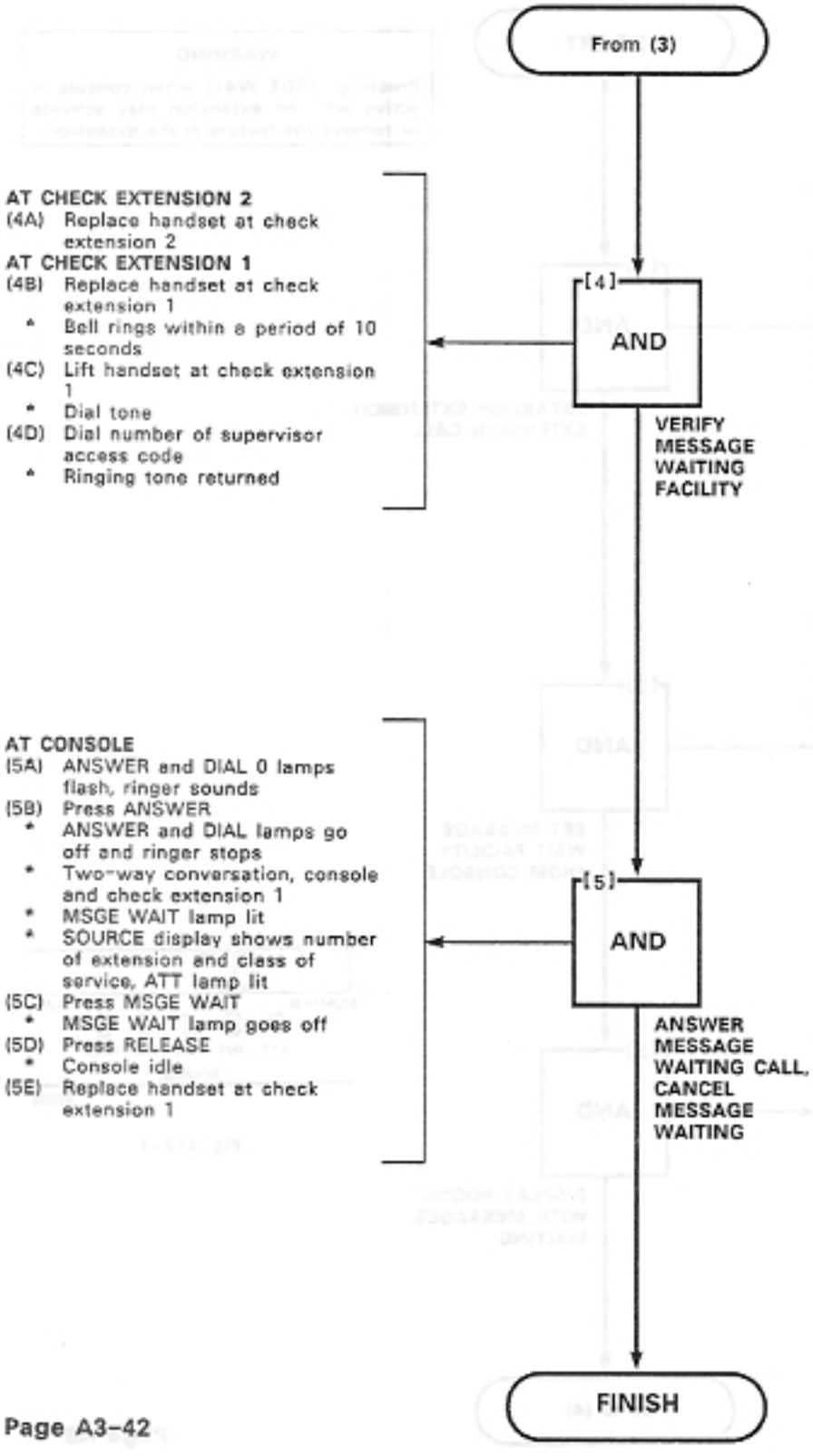

SUPERVISOR CALL FORWARDING - BUSY
MAP215-313
Issue 1, September 1983
Sheet 1 of 2

START

AT CONSOLE
(1A) Dial * 11333
* SOURCE display shows check extension 1 number and '–' (no forward code), Fig. 313-1
(1B) Dial 1222
* SOURCE display shows check extension 1 number and '1' (busy code) (Fig. 313-2)
* DESTINATION display shows check extension 2 number, ATT lamp lit
(1C) Press RELEASE
* Console idle

[1] AND

SET UP CALL FORWARDING BUSY (CONSOLE)

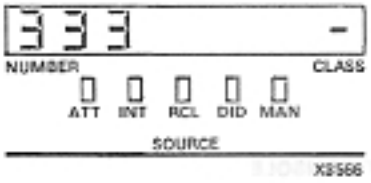

Fig. 313-1

AT CHECK EXTENSION 1
(2A) Lift handset
* Dial tone
AT MAINTENANCE HANDSET
(2B) Set switch to OFF-HOOK
* Dial tone
(2C) Dial number of check extension 1
* Check extension 2 rings
(2D) Replace check extension 1 handset and place maintenance handset switch to ON-HOOK

[2] AND

VERIFY CALL FORWARDING BUSY – NUMBER BUSY

AT MAINTENANCE HANDSET
(3A) Set switch to OFF-HOOK
* Dial tone
(3B) Dial number of check extension 1
* Check extension 1 rings

[3] AND

VERIFY CALL FORWARDING BUSY – NUMBER IDLE

Go to (4)

SUPERVISOR CALL FORWARDING - BUSY
MAP200- 313
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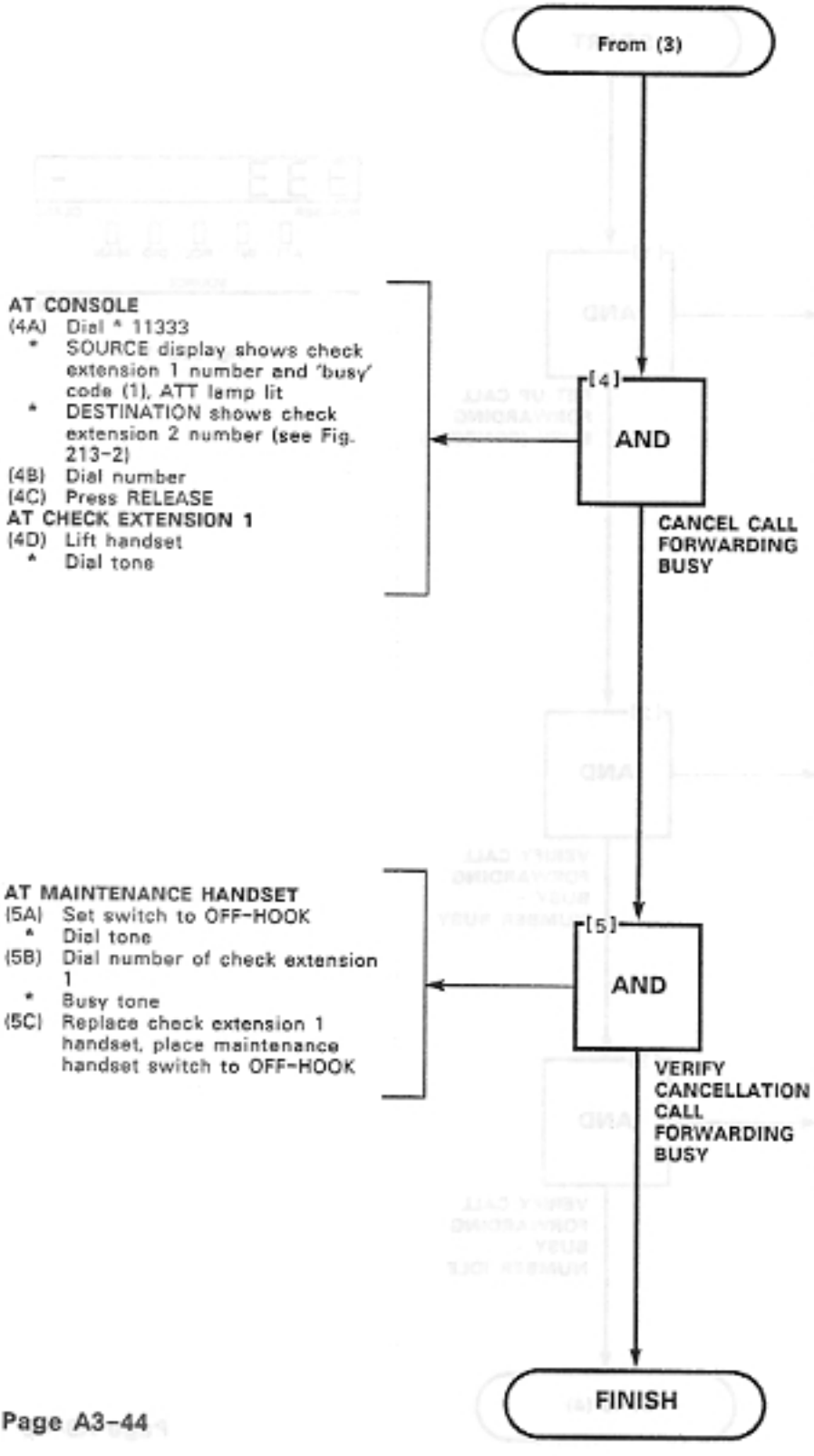

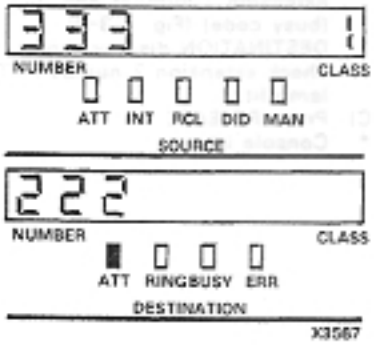

Fig. 313-2

SUPERVISOR CALL FORWARDING – DON'T ANSWER
MAP215-314
Issue 1, September 1983
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Note

See also MAP215-333 for External Call Forwarding.

START

AT CONSOLE
(1A) Dial * 11333
* SOURCE display shows number of check extension 1 and '–' (no forward code) see Fig. 314-1
(1B) Dial 2 222
* SOURCE display shows number of check extension 1 and digit 2 (Don't Answer code) (Fig. 314-2)
* DESTINATION display shows number of check extension 2, ATT lamp lit
(1C) Press RELEASE
* Console idle

[1] AND

SET UP CALL FORWARDING DON'T ANSWER (CONSOLE)

AT MAINTENANCE HANDSET
(2A) Set switch to OFF-HOOK
* Dial tone
(2B) Dial number of check extension 1
* Ringing tone
(2C) After timeout (20 s, 30 s or 40 s)
* Check extension 2 rings
* BUSY LAMP FIELD shows check extension 1 lamp idle, check extension 2 lamp busy
(2D) Set switch to ON-HOOK

[2] AND

VERIFY CALL FORWARDING DON'T ANSWER

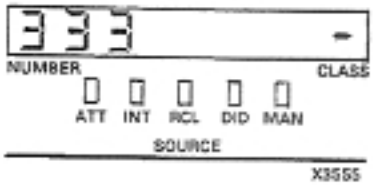

Fig. 314-1

AT CONSOLE
(3A) Dial * 11333
* SOURCE display shows number of check extension 1 and 'Don't Answer code '2' (Fig. 314-2))
* DESTINATION display shows number of check extension 2. (Fig. 314-2)
(3B) Press number sign
(3C) Press RELEASE

[3] AND

CANCEL CALL FORWARDING DON'T ANSWER

Go to (4)

SUPERVISOR CALL FORWARDING – DON'T ANSWER
MAP200- 314
Issue 1, September 1983
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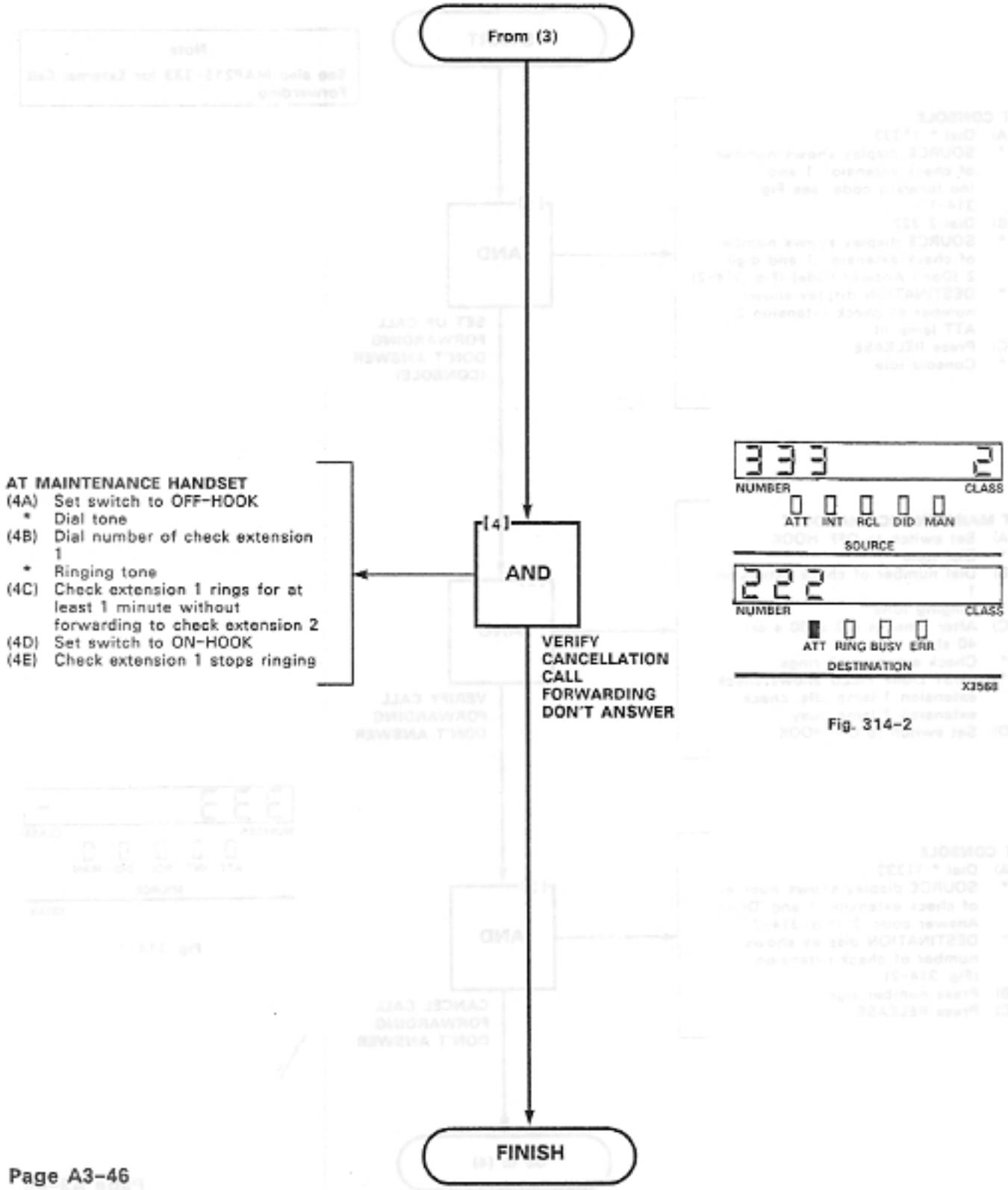

Fig. 314-2

SUPERVISOR CALL FORWARDING – FOLLOW ME
MAP215-315
Issue 1, September 1983
Sheet 1 of 2

Note

See also MAP215-333 for External Call Forwarding.

START

AT CONSOLE
(1A) Dial * 11333
* SOURCE display shows number of check extension 1 and '–' (no forward code) (See Fig. 315-1)
(1B) Dial 3 222
* SOURCE display shows number of check extension 1 and digit 3 (Call Forward – Follow Me code) (Fig. 315-2)
* DESTINATION display shows number of check extension 2, ATT lamp lit (Fig. 315-2)
(1C) Press RELEASE
* Console idle

[1] AND

SET UP CALL FORWARDING FOLLOW ME (CONSOLE)

AT MAINTENANCE HANDSET
(2A) Set switch to OFF-HOOK
* Dial tone
(2B) Dial number of check extension 1
* Ringing tone
(2C) Check extension 2 rings
* BUSY LAMP FIELD shows check extension 1 lamp idle, check extension 2 lamp busy
(2D) Set switch to ON-HOOK

[2] AND

VERIFY CALL FORWARDING FOLLOW ME

AT CONSOLE
(3A) Dial * 11333
* SOURCE display shows number of check extension 1 and 'Call Forward – Follow Me' '3' (Fig. 315-2)
* DESTINATION display shows number of check extension 2. (Fig. 315-2)
(3B) Press number
(3C) Press RELEASE

[3] AND

CANCEL CALL FORWARDING FOLLOW ME

Go to (4)

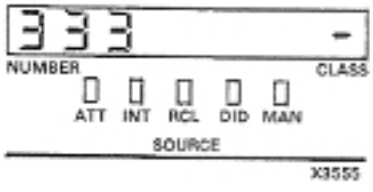

Fig. 315-1

SUPERVISOR CALL FORWARDING - FOLLOW ME
MAP200- 315
Issue 1, September 1983
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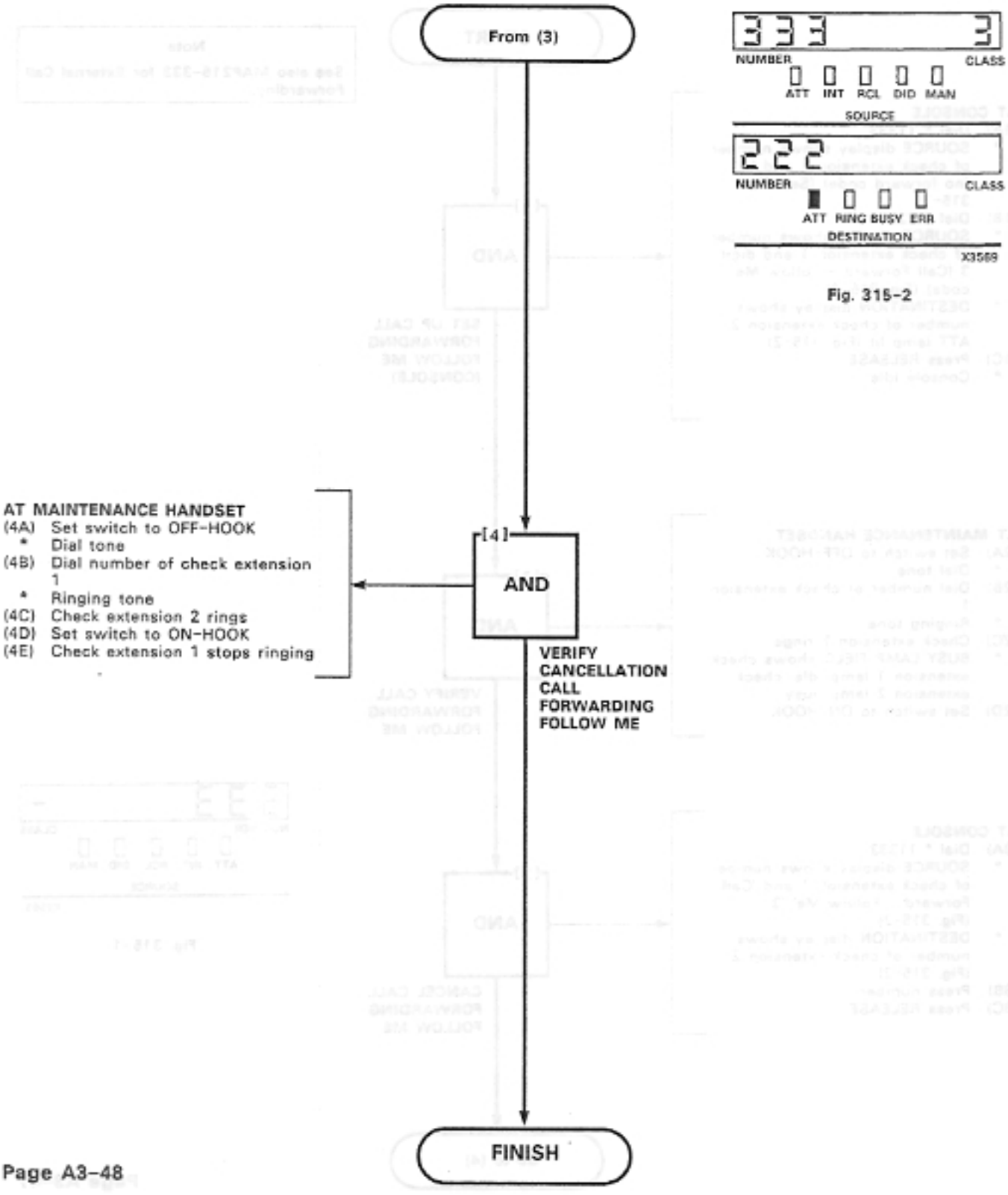

Fig. 315-2

SUPERVISOR CALL FORWARDING BUSY/DON'T ANSWER
MAP215-316
Issue 1, September 1983
Sheet 1 of 2

Note

See also MAP215-335 for External Call Forwarding.

START

AT CONSOLE
(1A) Dial * 11333
* SOURCE display shows number of check extension 1 and '-' (no forward code) (See Fig. 316-1)
* ATT lamp lit
(1B) Dial 4 222
* SOURCE display shows number of check extension 1 and digit 4 (Don't Answer code) (Fig. 316-2)
* DESTINATION display shows number of check extension 2, ATT lamp lit
(1C) Press RELEASE
* Console idle

[1] AND

SET UP CALL FORWARDING - BUSY-DON'T ANSWER (CONSOLE)

AT MAINTENANCE HANDSET
(2A) Set switch to OFF-HOOK
* Dial tone
(2B) Dial number of check extension 1
* Ringing tone
(2C) After timeout (20 s, 30 s or 40 s)
* Check extension 2 rings
* BUSY LAMP FIELD shows check extension 1 lamp idle, check extension 2 lamp busy
(2D) Set switch to ON-HOOK

[2] AND

VERIFY CALL FORWARDING - DON'T ANSWER

AT CHECK EXTENSION 1
(3A) Lift handset
* Dial tone
(3B) Leave handset off-hook
AT MAINTENANCE HANDSET
(3C) Switch to OFF-HOOK
* Dial tone
(3D) Dial number of check extension 1
* Ringing tone
* Check extension 2 rings
(3E) Answer check extension 2 and verify connection
(3F) Go on-hook at all locations

[3] AND

VERIFY CALL FORWARDING - BUSY

Go to (4)

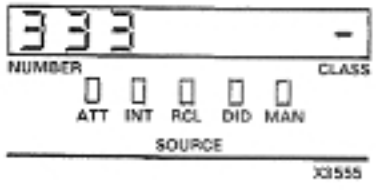

Fig. 316-1

SUPERVISOR CALL FORWARDING BUSY/DON'T ANSWER
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Issue 1, September 1983
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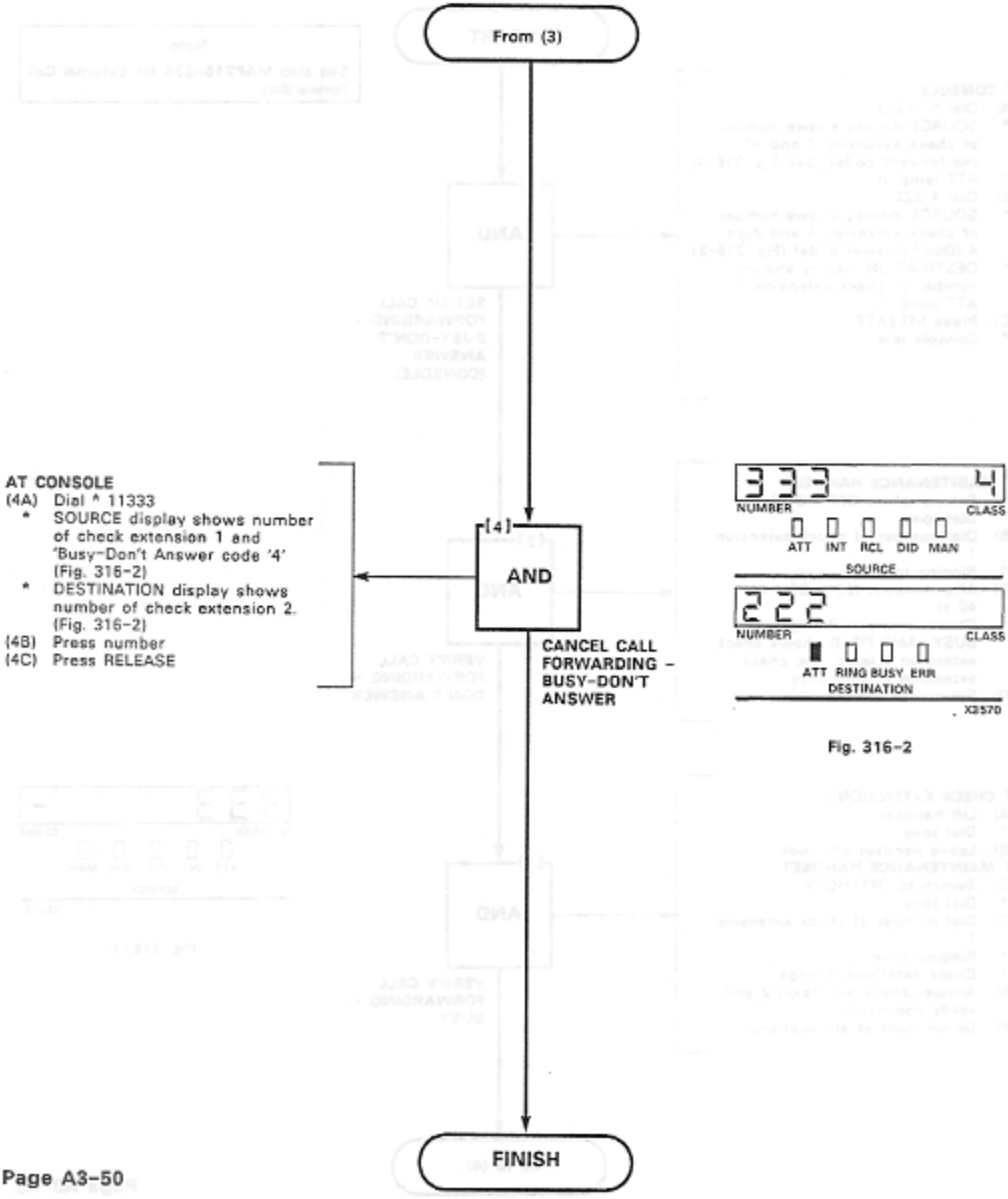

Fig. 316-2

SUPERVISOR-CONTROLLED CONFERENCE
MAP215-317
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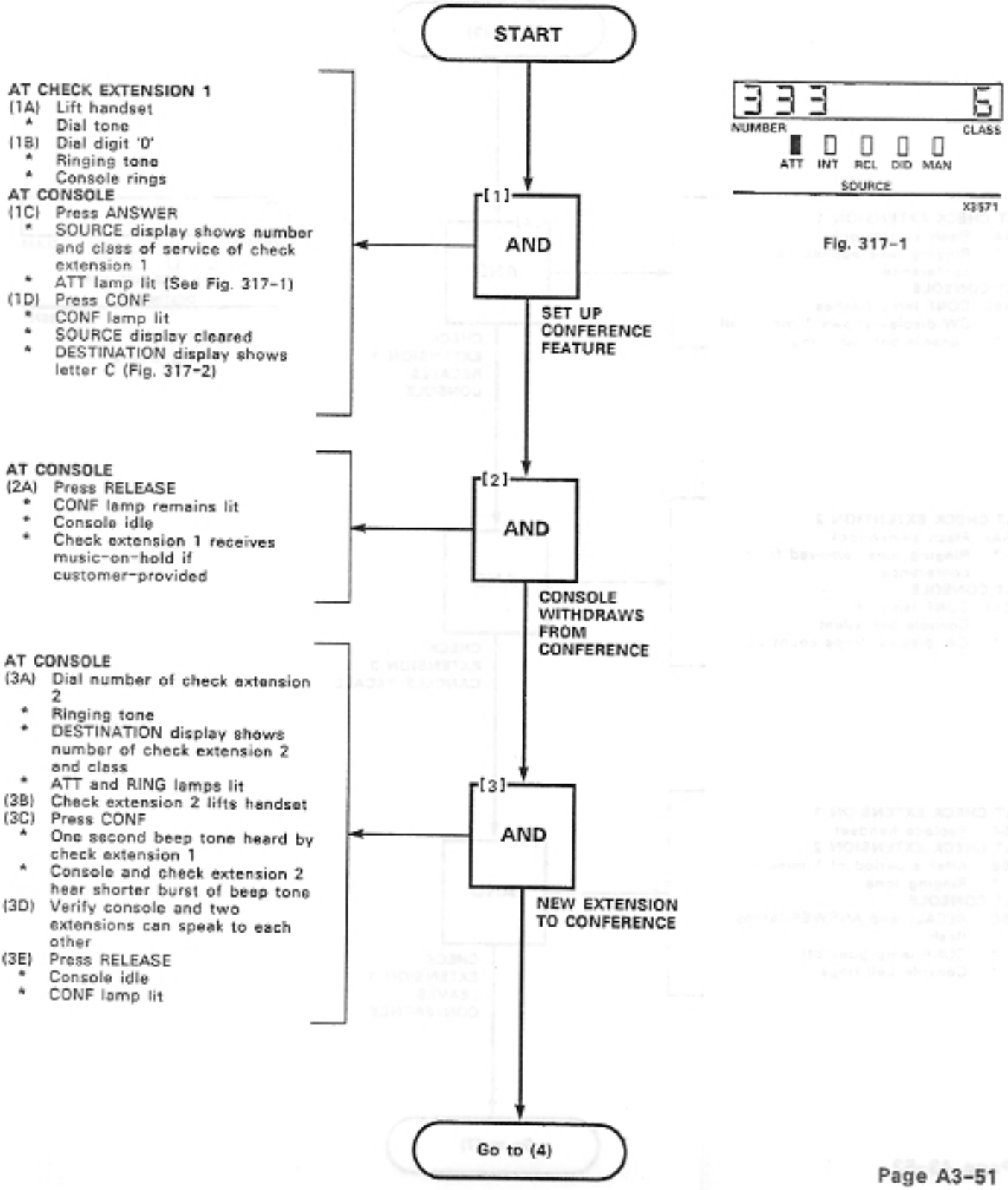

Fig. 317-1

SUPERVISOR-CONTROLLED CONFERENCE
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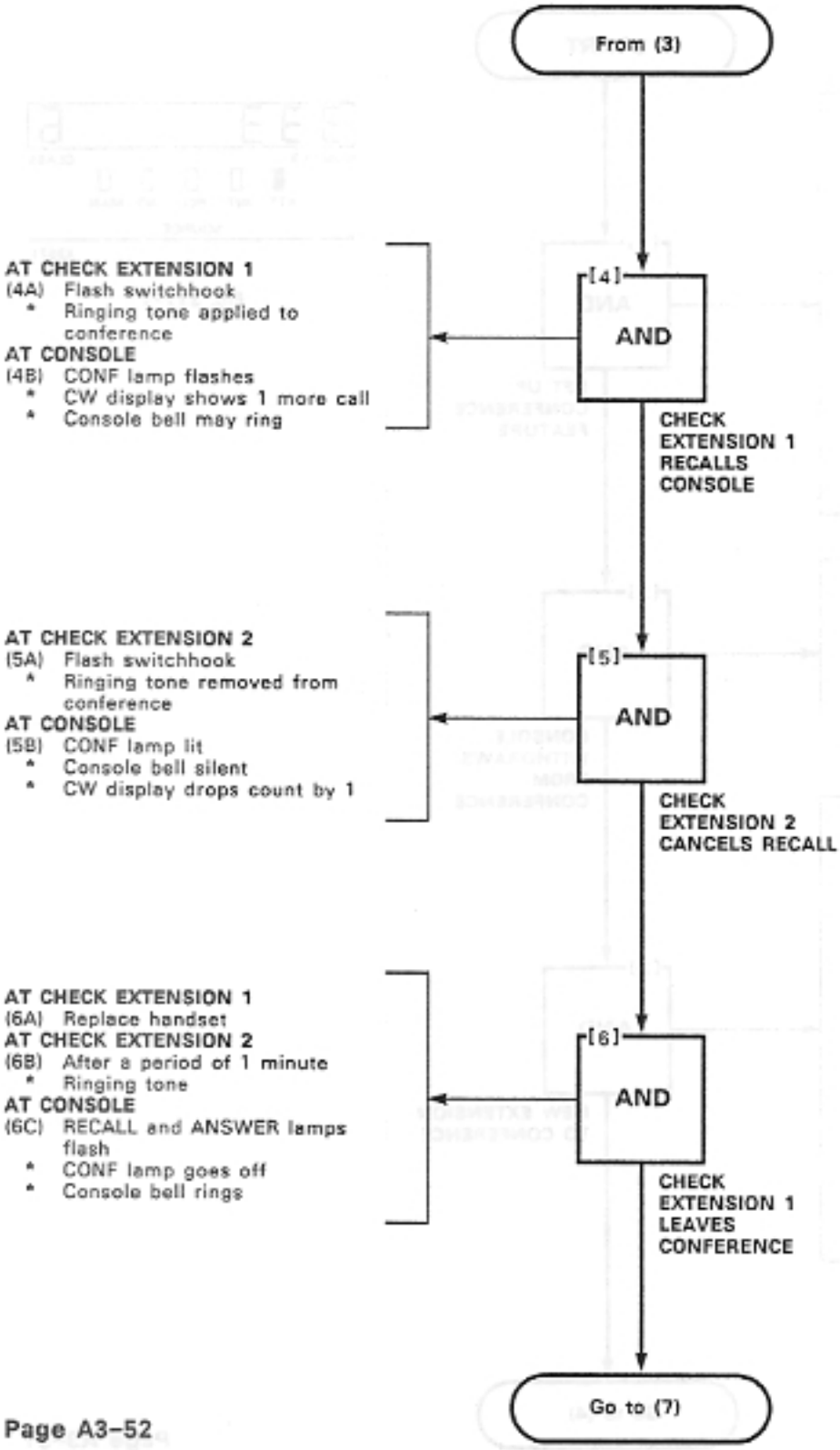

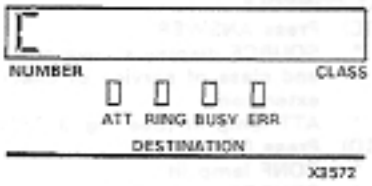

Fig. 317-2

SUPERVISOR-CONTROLLED CONFERENCE
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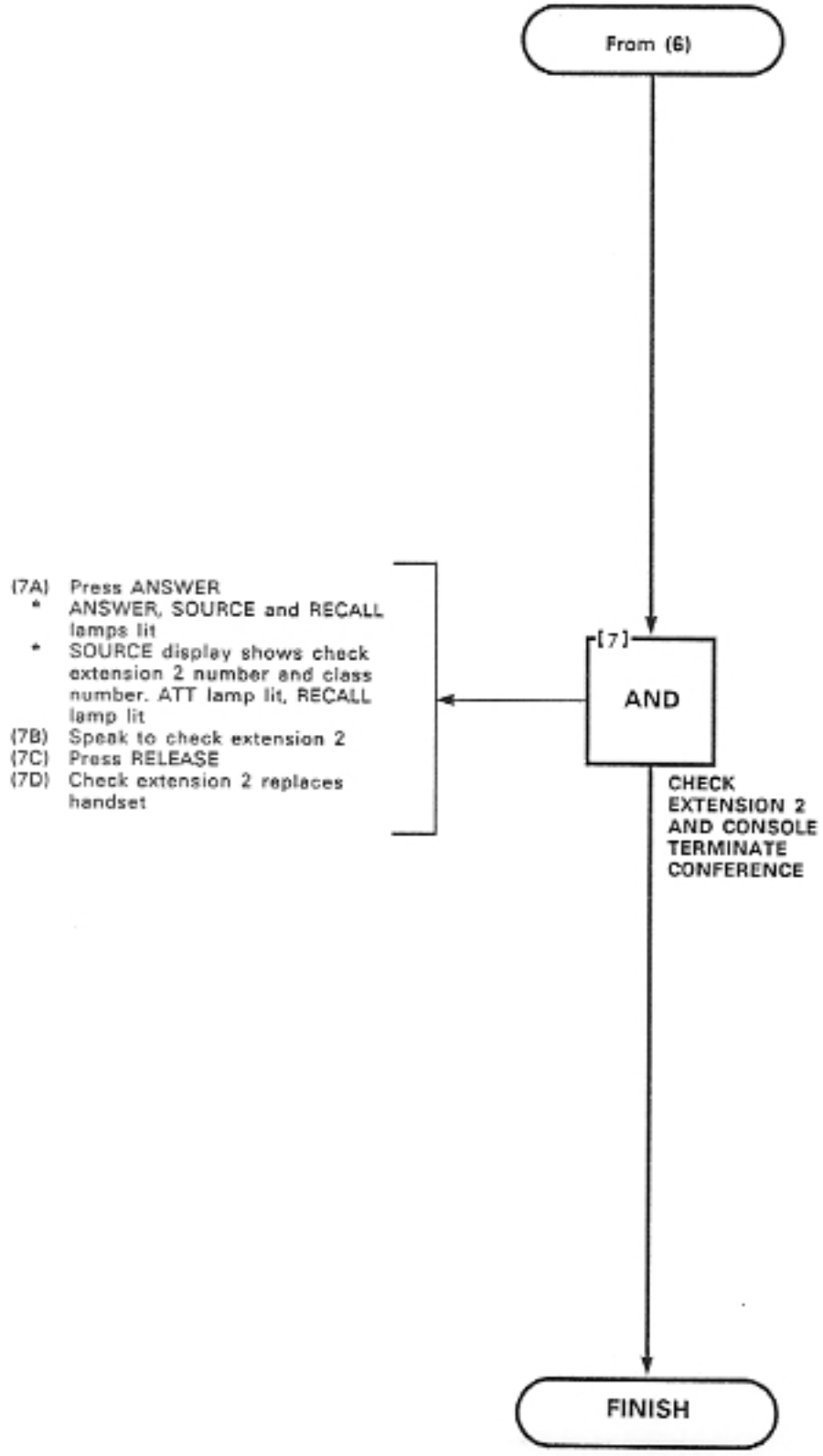

SUPERVISOR STATION BUSY-OUT
MAP215-318
Issue 1, September 1983
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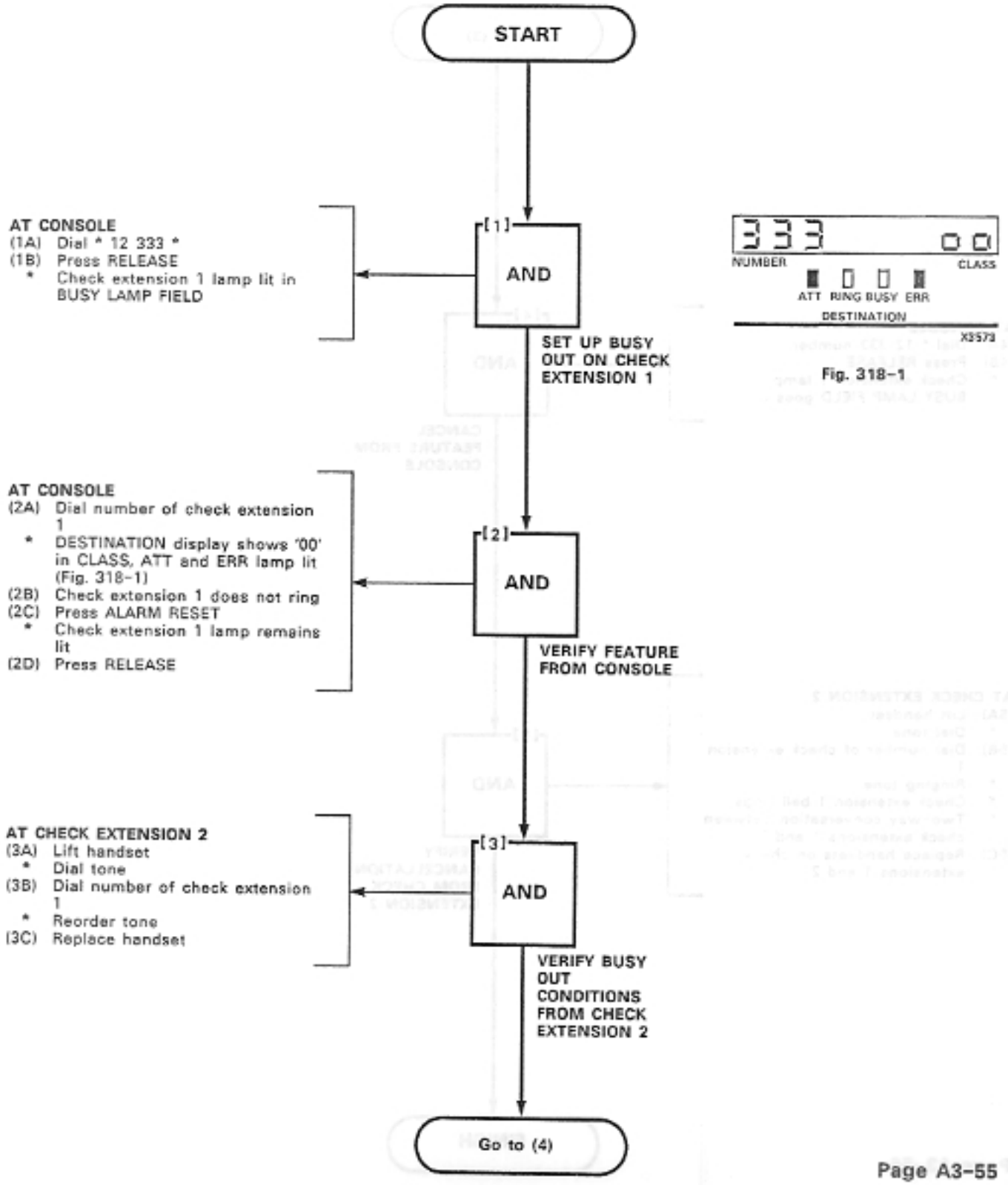

Fig. 318-1

SUPERVISOR STATION BUSY-OUT
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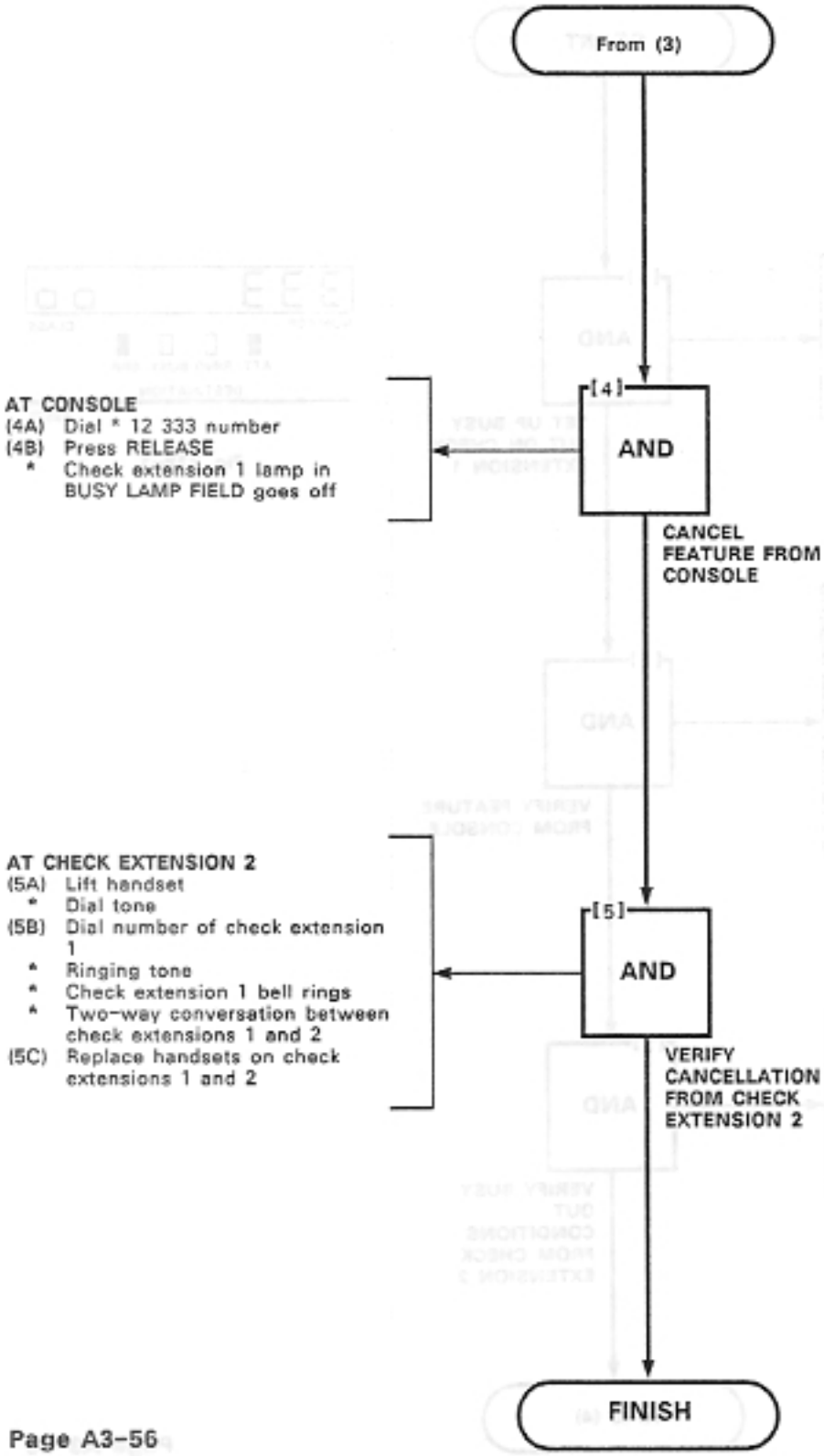

CALL BLOCK
MAP215-319
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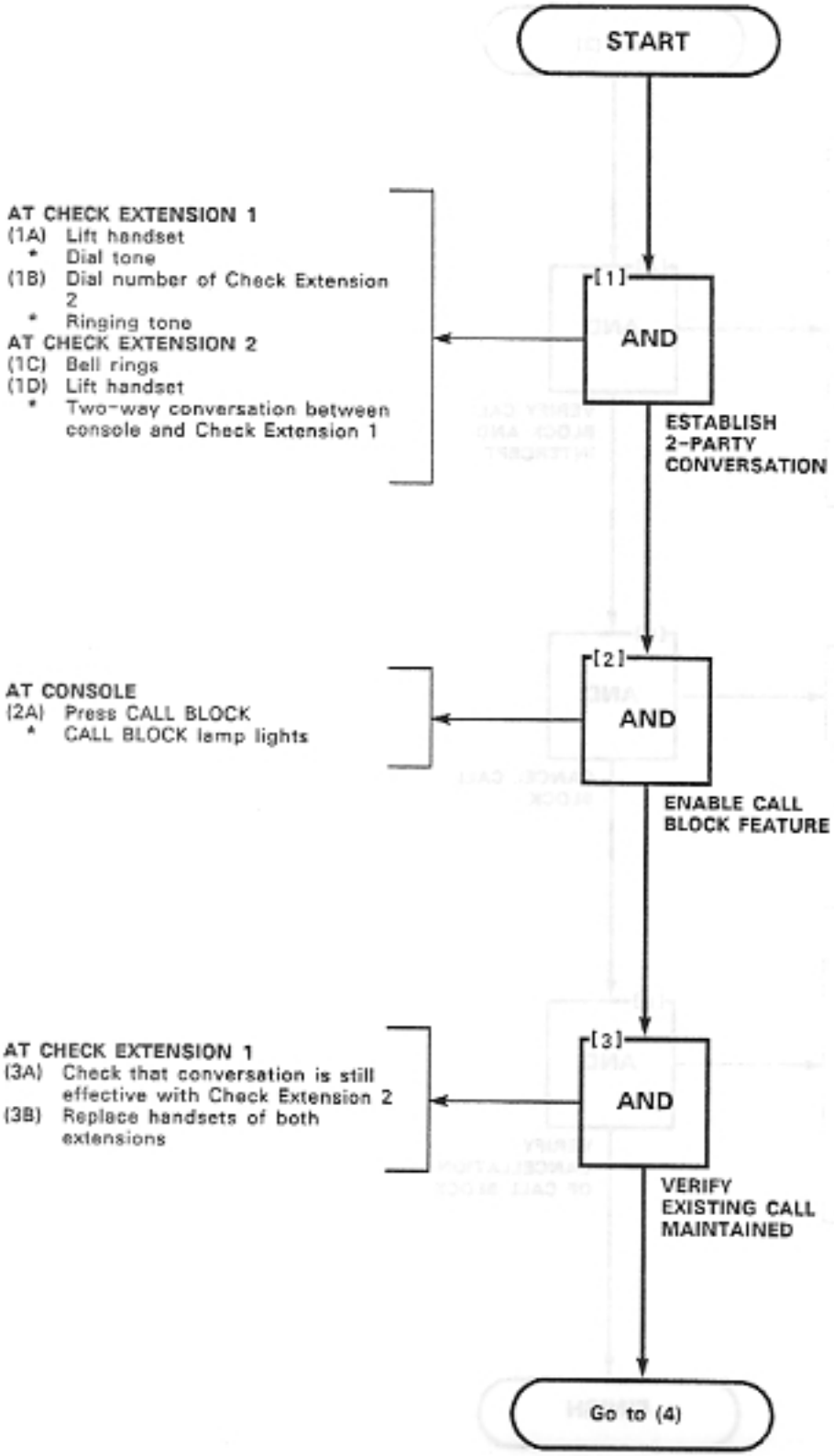

CALL BLOCK
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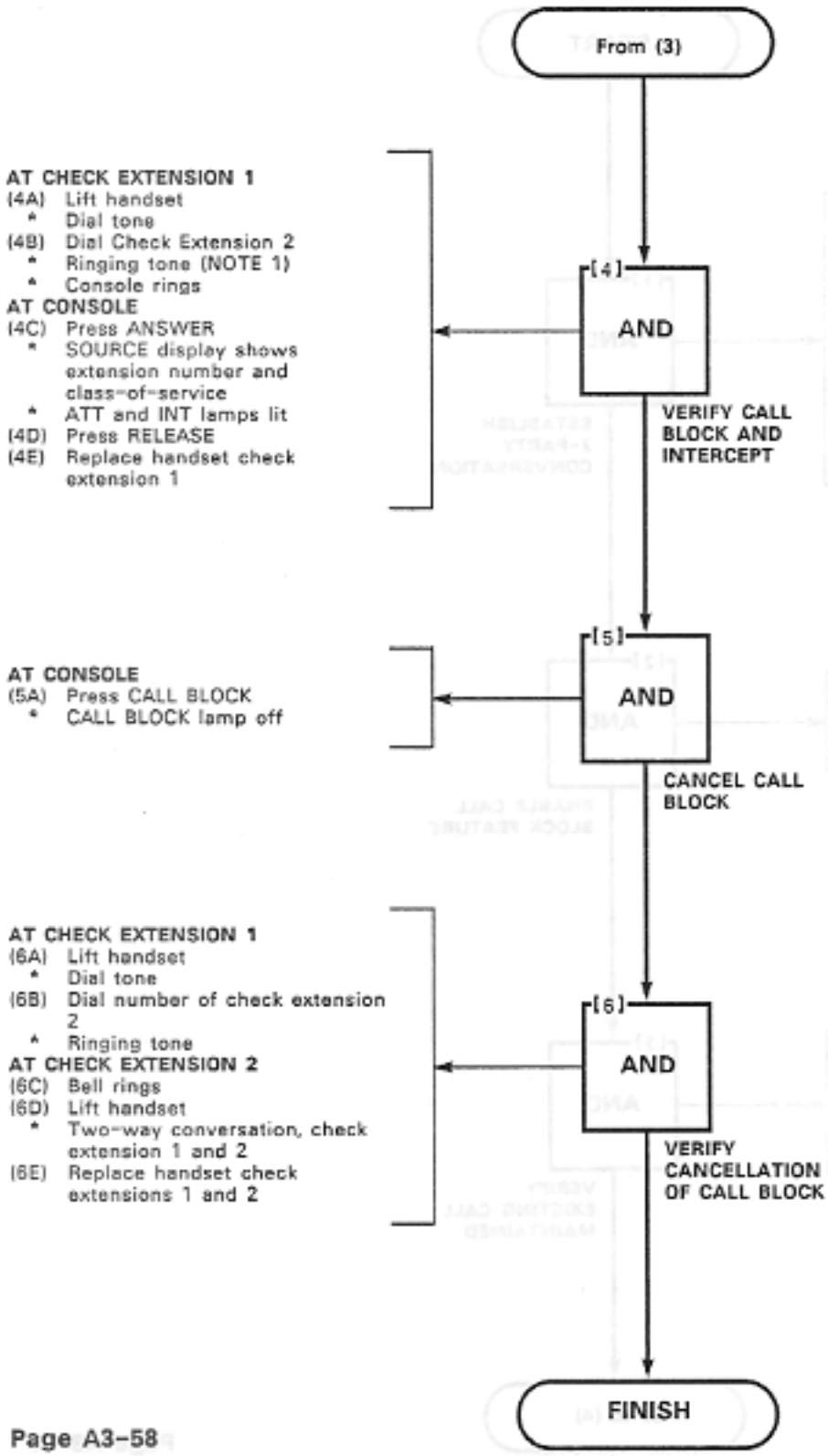

SUPERVISOR DO NOT DISTURB (H/M)
MAP215-320
Issue 1, September 1983
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WARNING

Pressing **DO NOT DSTB** key when console is active with an extension may activate or remove the feature at the extension.

START

AT CONSOLE
(1A) Press GUEST ROOM
* GUEST ROOM lamp lit
(1B) Dial number of check extension 1
* SOURCE display shows check extension number and message register, ATT lamp lit
* DESTINATION display shows room status code (Fig. 320-1)
(1C) Press DO NOT DSTB
* DO NOT DSTB lamp lit
* Check extension 1 lamp lit in Busy Lamp Field
(1D) Press RELEASE
* Console idle

[1] AND

DISPLAY GUEST ROOM STATUS AT CONSOLE

AT CHECK EXTENSION 2
(2A) Lift handset
* Dial tone
(2B) Dial number of check extension 1
* Ringing tone (NOTE 1)
* Console rings
* DIAL 0 and ANSWER lamps flash

AT CONSOLE
(2C) Press ANSWER
* SOURCE display shows number of check extension 2 and class of service
* ATT and INT lamps lit
(2D) Two-way conversation, console and check extension 2
(2E) Press RELEASE
(2F) Replace check extension 2 handset

[2] AND

VERIFY FEATURE FROM SECOND PARTY

AT CONSOLE
(3A) Press DO NOT DSTB
* SOURCE display, Fig. 320-2, shows total number of rooms with 'do not disturb' facility
(3B) Release DO NOT DSTB
* Console idle

[3] AND

DISPLAY NUMBER OF ROOMS WITH DO NOT DISTURB ACTIVATED

Go to (4)

Note 1: Ringing is given in substep (2B) if System Option 174 is selected. Otherwise, reorder tone is given and remainder of step (2) is omitted.

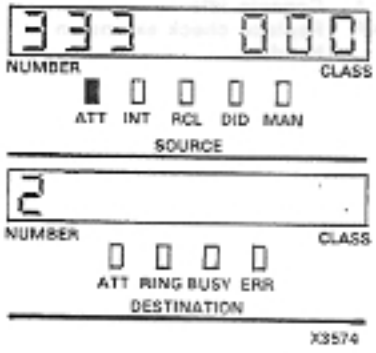

Fig. 320-1

SUPERVISOR DO NOT DISTURB (H/M)
MAP215- 320
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From (3)

AT CONSOLE
(4A) Dial check extension 1
* ERR lamp lit in DESTINATION display
* DO NOT DSTB lamp flashes
(4B) Press DO NOT DSTB
* ERR lamp goes out
* Ringing tone
AT CHECK EXTENSION 1
(4C) Check extension 1 rings
(4D) Lift handset
* Two-way conversation, check extension 1 and console
(4E) Press RELEASE
* Console idle
(4F) Replace check extension 1 handset

[4] AND

VERIFY OVERRIDE FEATURE

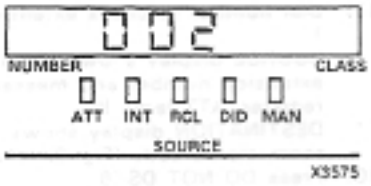

Fig. 320-2

AT CONSOLE
(5A) Press GUEST ROOM
* GUEST ROOM lamp lit
(5B) Dial check extension 1 number
* SOURCE display shows check extension number and message register
* DESTINATION display shows room status code (See Fig. 320-1)
(5C) Press DO NOT DSTB
* DO NOT DSTB lamp goes off
* Extension lamp in BUSY LAMP FIELD goes off
(5D) Press RELEASE
* Console idle

[5] AND

CANCEL DO NOT DISTURB FEATURE

Go to (6)

SUPERVISOR DO NOT DISTURB (H/M)
MAP215-320
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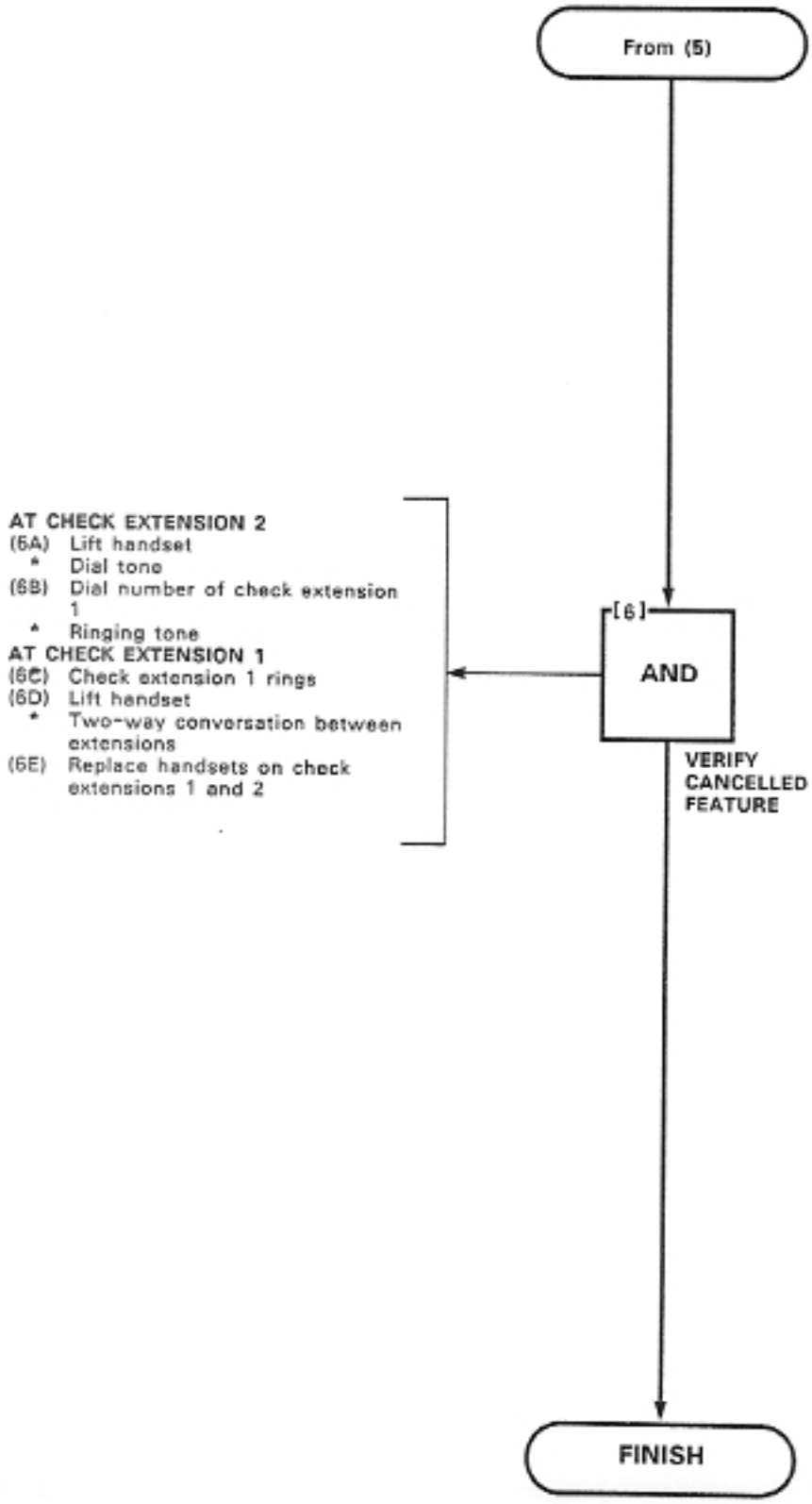

MESSAGE REGISTRATION (H/M)
MAP215-321
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Sheet 1 of 2

START

AT CONSOLE
(1A) Press GUEST ROOM
* GUEST ROOM lamp lights
(1B) Dial number of check extension 1
* SOURCE display shows room number and message registration. (Fig. 321-1)
* DESTINATION display shows room status code (and period if maid in room)
(1C) Dial 'number'
* Message Register reverts to zero registration
Press RELEASE

[1] AND

DISPLAY AND ZERO MESSAGE REGISTER (FIG. 321-1)

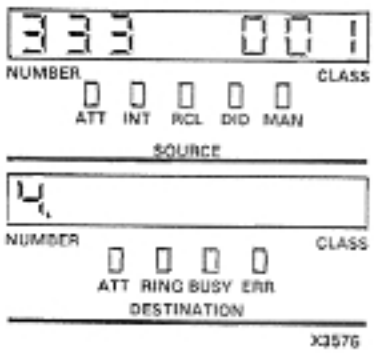

Fig. 321-1

AT CHECK EXTENSION 1
(2A) Lift handset
* Dial tone
(2B) Dial CO trunk access code
* CO dial tone
(2C) Dial console listed directory number

[2] AND

DIAL LDN

AT CONSOLE
(3A) ANSWER and LDN lamps flash, ringer sounds
(3B) Press LDN
* ANSWER, LDN and SOURCE lamps light
* SOURCE display shows number of calling trunk, ATT lamp lit
* Two-way conversation, console and check extension 1
(3C) Wait 1 minute
(3D) Press RELEASE
(3E) Replace handset on check extension 1

[3] AND

COMPLETE LDN CALL

Go to (4)

MESSAGE REGISTRATION (H/M)
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From (3)

[4]

AND

AT CONSOLE
(4A) Press GUEST ROOM
* GUEST ROOM lamp lights
(4B) Dial number of check extension 1
* SOURCE display shows room number and new message registration (Fig. 321-2)
* DESTINATION display shows room status code
(4C) Press RELEASE
* SOURCE and DESTINATION displays are extinguised

DISPLAY MESSAGE REGISTER (FIG. 321-2)

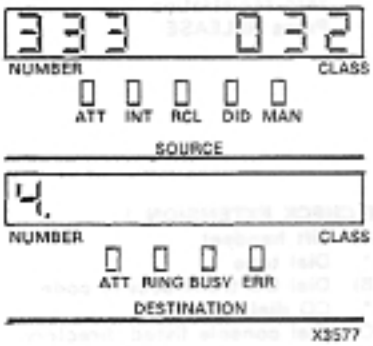

Fig. 321-2

FINISH

CONTROLLED OUTGOING CALL RESTRICTION (H/M)
MAP215-322
Issue 1, September 1983
Sheet 1 of 2

START

Note: This MAP applies when console has ROOM RESTR. If ROOM STATUS see MAP215-323.

AT CONSOLE
(1A) Press GUEST ROOM
* GUEST ROOM lamp lit
(1B) Dial check extension 1
* SOURCE display shows number and message register count
* DESTINATION display shows room status code (and period if maid in room) (See Fig. 322-1 and Table 322-1)

[1] AND

VERIFY ROOM STATUS

TABLE 322-1
ROOM STATUS CODES

CODE	STATUS
1	Room is vacant and ready
2	Room is occupied and clean
3	Room is vacant but requires cleaning
4	Room is occupied but requires cleaning

[2] Does Room Status code display indicate digit '1' or '3'

YES → Go to (4)

NO

AT CONSOLE
(3A) Dial digit 1
* SOURCE display shows room number and message registration
* DESTINATION display changes to read digit '1' for room status (Fig. 322-1)
(3B) Press ROOM RESTR
* ROOM RESTR lamp lit
(3C) Press RELEASE
* SOURCE and DESTINATION displays are cleared
* ROOM RESTR lamp cleared

[3] AND

ENABLE ROOM RESTRICTION (OUTGOING CALLS)

Go to (4)

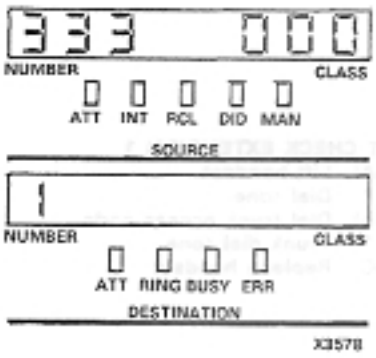

Fig. 322-1

CONTROLLED OUTGOING CALL RESTRICTION (H/M)
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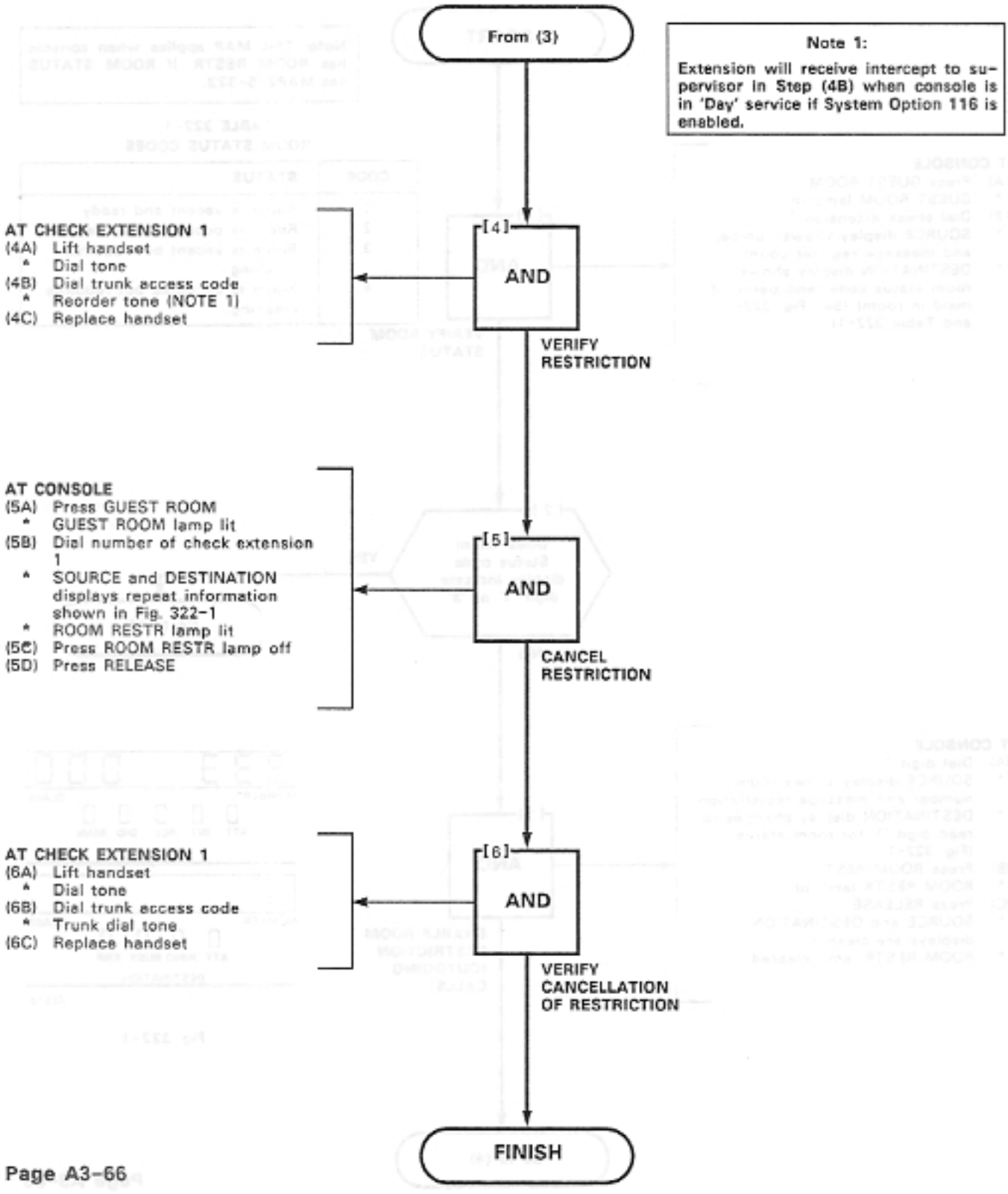

ROOM STATUS (H/M)
MAP215-323
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Sheet 1 of 4

START

AT CONSOLE
(1A) Press GUEST ROOM
(1B) Dial the number of check extension 1
* SOURCE display shows number of check extension 1 and message register count
* DESTINATION display shows room status code (Table 323-1)
(1C) Dial digit 3
* DESTINATION display shows room status code 3 (Fig. 323-1)

[1] AND

SET AND VERIFY ROOM STATUS

AT CHECK EXTENSION 1
(2A) Lift handset
* Dial tone
(2B) Dial 'Maid Access' code then digit 1 (Table 323-2)
(2C) Replace handset

AT CONSOLE
(2D) Repeat steps (1A)-(1C)
* Period sign appears after status code in DESTINATION display
(2E) Press RELEASE
* SOURCE and DESTINATION displays extinguished

[2] AND

SET EXTENSION FOR MAID-IN-ROOM CONDITION

AT CONSOLE
(3A) Press ROOM STATUS
(3B) Press and hold digit 0
* Check extension 1 lamp lit in BUSY LAMP FIELD
* SOURCE display shows total number of rooms with maids present (Fig. 323-2)
(3C) Release key pad digit 0
(3D) Press ROOM STATUS
(3E) Press and hold digit 3
* Check extension 1 lamp lit in BUSY LAMP FIELD
* SOURCE display, (Fig. 323-2) changes to reflect total number of vacant rooms which require cleaning
(3F) Release key pad digit 3
* BUSY LAMP FIELD resumes normal indications
(3G) Press RELEASE

[3] AND

VERIFY ROOM STATUS ON BUSY LAMP FIELD

Go to (4)

NOTES
(1) The single-digit codes in the following procedures have meanings shown in Tables 323-1 and 323-2.
(2) Maid codes are dialed from room only, after the 'Maid Access' code has been dialed (Table 323-2).

TABLE 323-1
ROOM STATUS CODES

STATUS CODE	STATUS
1	Room vacant and ready
2	Room occupied and clean
3	Room vacant, requires cleaning
4	Room occupied, requires cleaning

TABLE 323-2
MAID-DIALED CODES

MAID CODE	INDICATION (NOTE 2)
1	Maid in room, requires cleaning
2	Maid left room, status unchanged
3	Maid left room, room ready

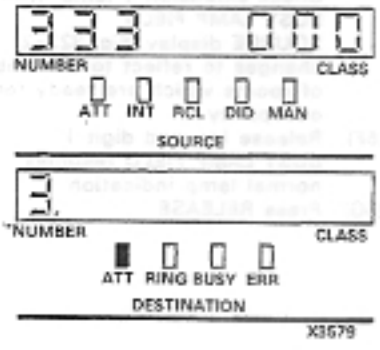

Fig. 323-1

ROOM STATUS (H/M)
MAP215- 323
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From (3)

[4] AND

AT CHECK EXTENSION 1
(4A) Lift handset
* Dial tone
(4B) Dial 'Maid Access' code then digit 3
(4C) Replace handset

SET EXTENSION FOR ROOM READY AND NO MAID-IN-ROOM

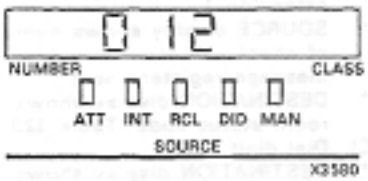

Fig. 323-2

[5] AND

AT CONSOLE
(5A) Press GUEST ROOM
(5B) Dial the number of check extension 1
* SOURCE display shows number of check extension 1, and message register count
* DESTINATION display shows roon status code '1' (Fig. 323-3)
(5C) Press RELEASE
* SOURCE and DESTINATION displays extinguished

SET AND VERIFY ROOM STATUS ON DESTINATION DISPLAY (VACANT-READY)

[6] AND

(6A) Press ROOM STATUS
(6B) Press and hold key pad digit 0
* Check extension 1 lamp not lit in BUSY LAMP FIELD
* Repeat same entry per top right previous page
(6C) Release key pad digit 0
* BUSY LAMP FIELD resumes normal indications
(6D) Press ROOM STATUS
(6E) Press and hold key pad digit 1
* Check extension 1 lamp lit in BUSY LAMP FIELD
* SOURCE display, Fig. 323-2, changes to reflect total number of rooms which are ready for occupancy
(6F) Release key pad digit 1
* BUSY LAMP FIELD resumes normal lamp indication
(6G) Press RELEASE

VERIFY ROOM STATUS ON BUSY LAMP FIELD

Go to (7)

ROOM STATUS (H/M)
MAP215-323
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From (6)

AT CONSOLE
(7A) Press GUEST ROOM
(7B) Dial the number of check extension 1 and Message Register count
* SOURCE display shows number of check extension 1
* DESTINATION display shows room status '1' (Fig. 323-3)
(7C) Dial digit 2
* DESTINATION display shows room status code '2'
(7D) Press RELEASE
* SOURCE and DESTINATION displays extinguished

[7]
AND

SET AND VERIFY ROOM STATUS ON DESTINATION DISPLAY (OCCUPIED-CLEAN)

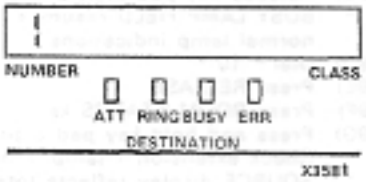

Fig. 323-3

(8A) Press ROOM STATUS
(8B) Press and hold key pad digit 2
* Check extension 1 lamp lit in BUSY LAMP FIELD
* SOURCE display, Fig. 323-2, changes to reflect total number of rooms which are occupied and cleaned
(8C) Release key pad digit 2
* BUSY LAMP FIELD resumes normal lamp indications
(8D) Press RELEASE

[8]
AND

VERIFY ROOM STATUS ON BUSY LAMP FIELD

Go to (9)

ROOM STATUS (H/M)
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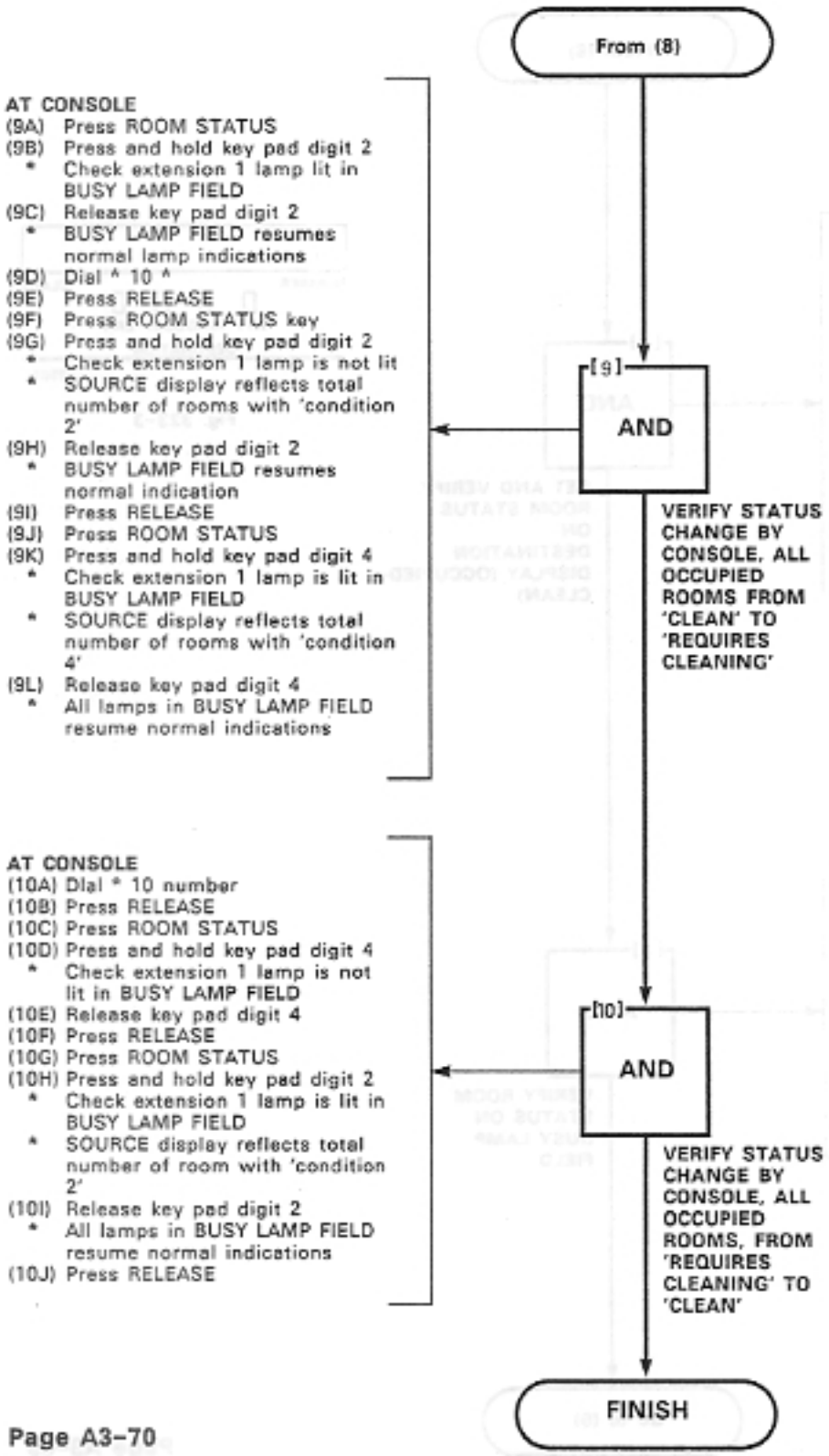

AUTOMATIC WAKE-UP (ALARM CALL)
MAP215-324
Issue 1, September 1983
Sheet 1 of 2

START

AT CONSOLE
(1A) Press GUEST ROOM button
* GUEST ROOM lamp lights
(1B) Dial check extension number
* DESTINATION display shows wake-up time if one has been requested. Display blank if no wake-up requested (Fig. 324-1)

[1] AND

TO SET AUTOMATIC WAKEUP FROM CONSOLE

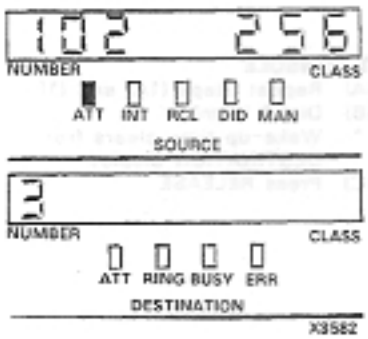

Fig. 324-1

(2A) Dial *, wake-up time, then 'number' (or * if p.m., 12-hour format)
* DESTINATION display shows wake-up time (Fig. 324-2)
(2B) Press RELEASE

[2] AND

TO SET AUTOMATIC WAKE-UP FROM CONSOLE (FIG. 324-2)

Fig. 324-2

AT CHECK EXTENSION
(3A) Check extension rings at desired wake-up time

[3] AND

CHECK EXTENSION RINGS

Go to (4)

AUTOMATIC WAKE-UP (ALARM CALL)
MAP200- 324
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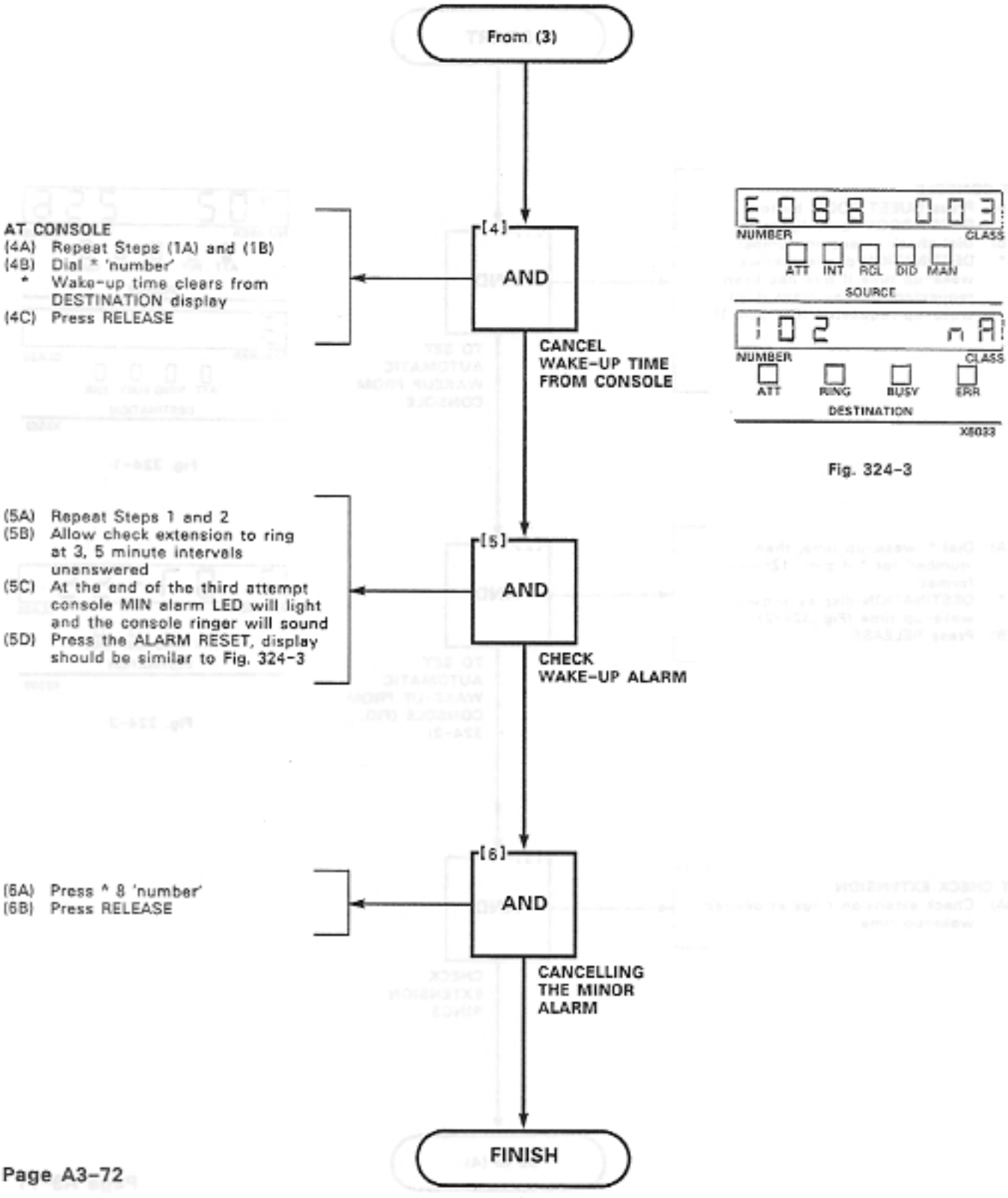

Fig. 324-3

MESSAGE WAITING (H/M)
MAP215-325
Issue 1, September 1983
Sheet 1 of 2

WARNING

Pressing the **MSGE WAIT** key when console is active with an extension may activate or remove the feature at the extension.

START

Note 1

The lamp flash facility to flash telephones fitted with lamps is available on PABX line cards bearing part number 9110-010-000. Either option 276 for lamp flash or option 275 for bell ring may be programmed, but not both.

AT CHECK EXTENSION 1
(1A) Lift handset
* Dial tone
AT CONSOLE
(1B) Press GUEST ROOM
* GUEST ROOM lamp lit
(1C) Dial check extension 1
* Busy tone
* Extension busy lamp lit
(1D) Press MSGE WAIT
* MSGE WAIT lamp lit
* Extension busy lamp lit
(1E) Press RELEASE

[1] AND

SET UP MESSAGE WAITING

AT CONSOLE
(2A) Press MSGE WAIT
* SOURCE display (Fig. 325-1), shows total number of rooms with messages waiting
(2B) Release MSGE WAIT
* SOURCE display becomes idle

[2] AND

DISPLAY NUMBER OF ROOMS WITH MESSAGES WAITING

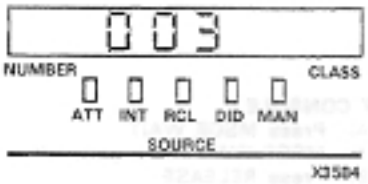

Fig. 325-1

AT CHECK EXTENSION 1
(3A) Replace handset
* Bell rings after 10 s (Note 1)
AT CHECK EXTENSION 1
(3B) Lift handset
* Dial tone
(3C) Dial '0'
* Ringing tone
* Console rings
AT CONSOLE
(3D) Press ANSWER
* SOURCE display shows number and class of service of check extension 1, ATT lamp lit
(3E) Two-way conversation between console and check extension 1
(3F) MSGE WAIT lamp lit

[3] AND

EXTENSION CALL TO CONSOLE

Go to (4)

MESSAGE WAITING (H/M)
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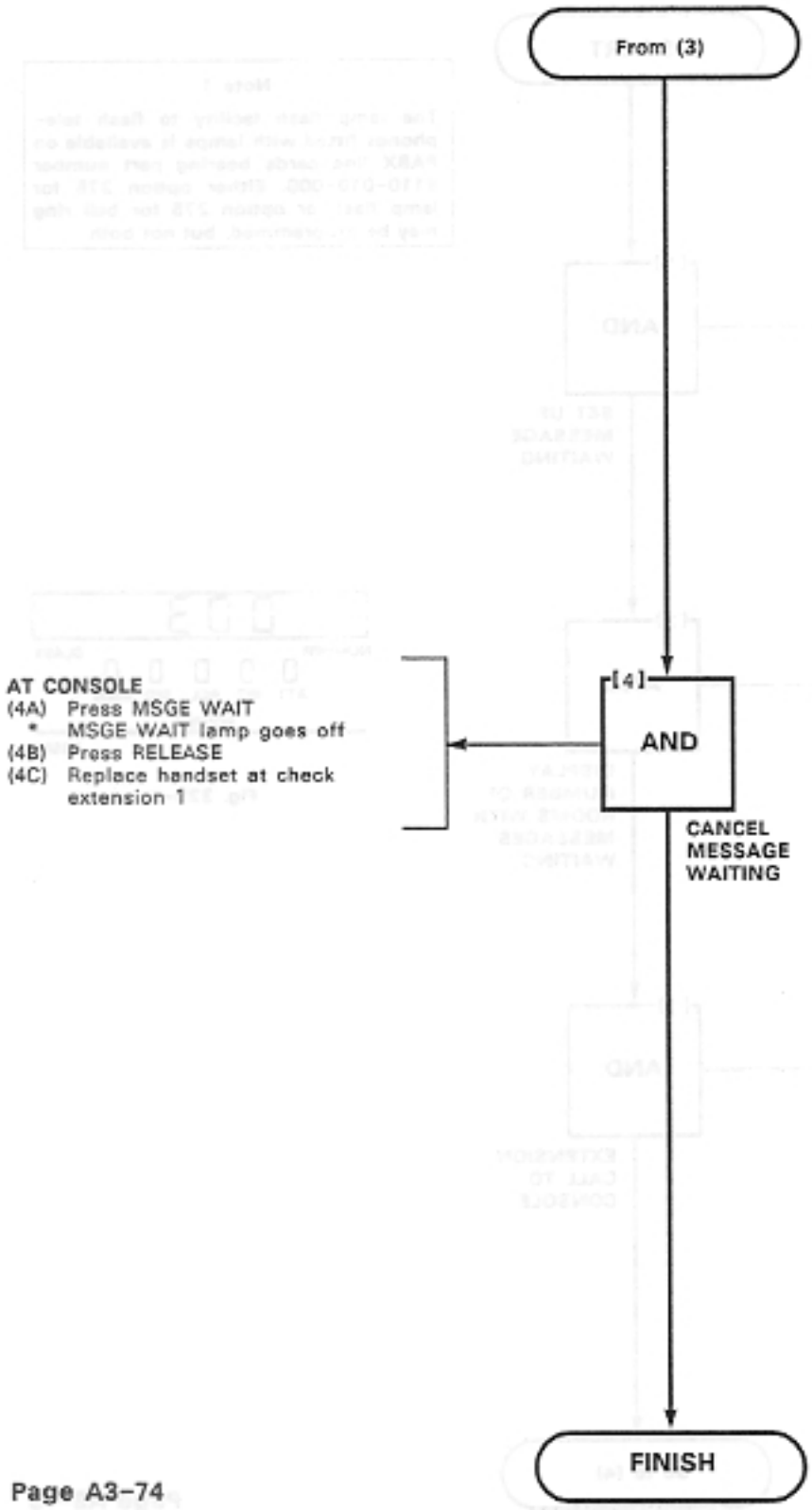

CONSOLE DATE DISPLAY AND DATE UTILITY
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Issue 1, September 1983
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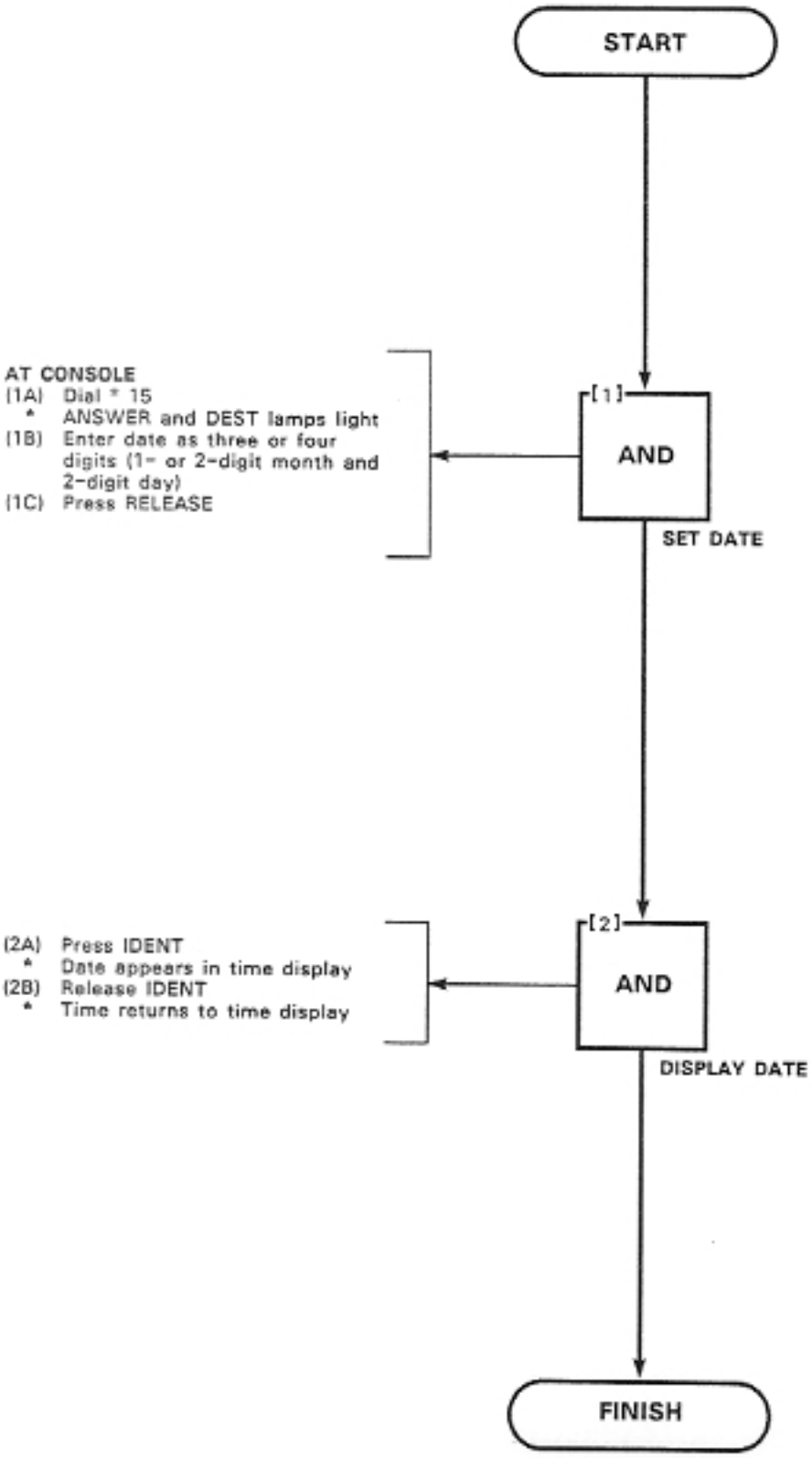

CONTROLLING THE PRINTER
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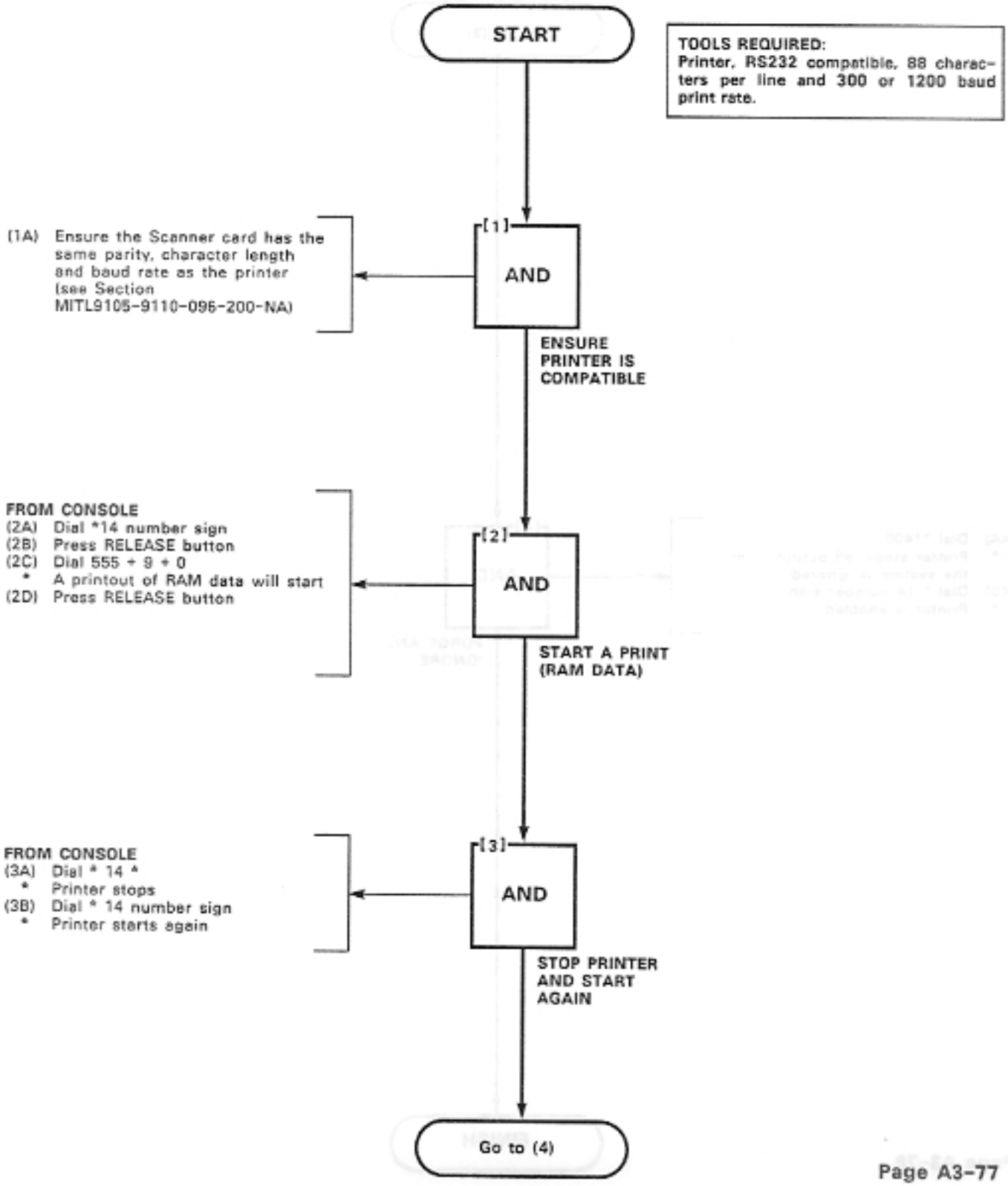

CONTROLLING THE PRINTER
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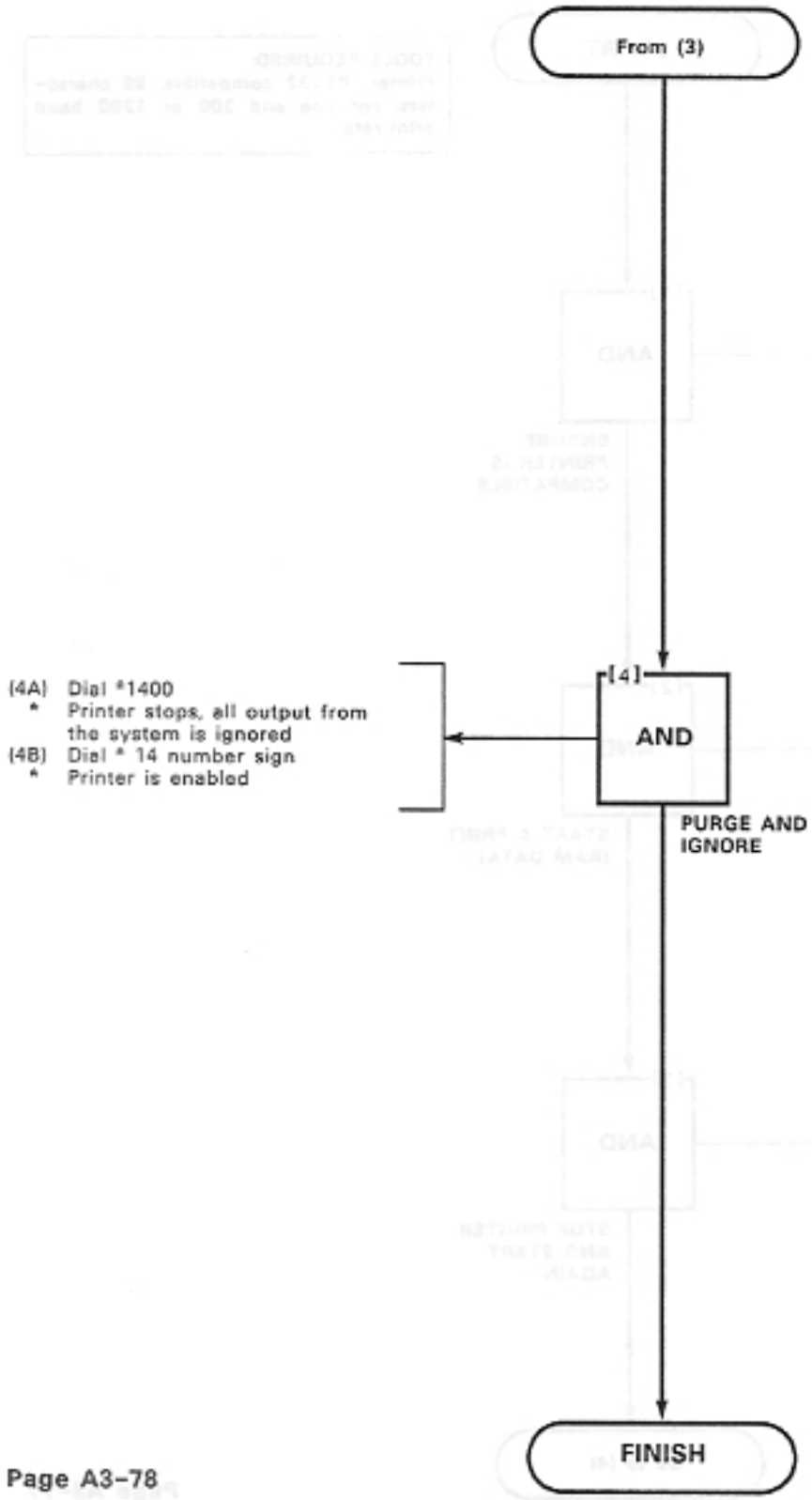

ROOM AUDIT
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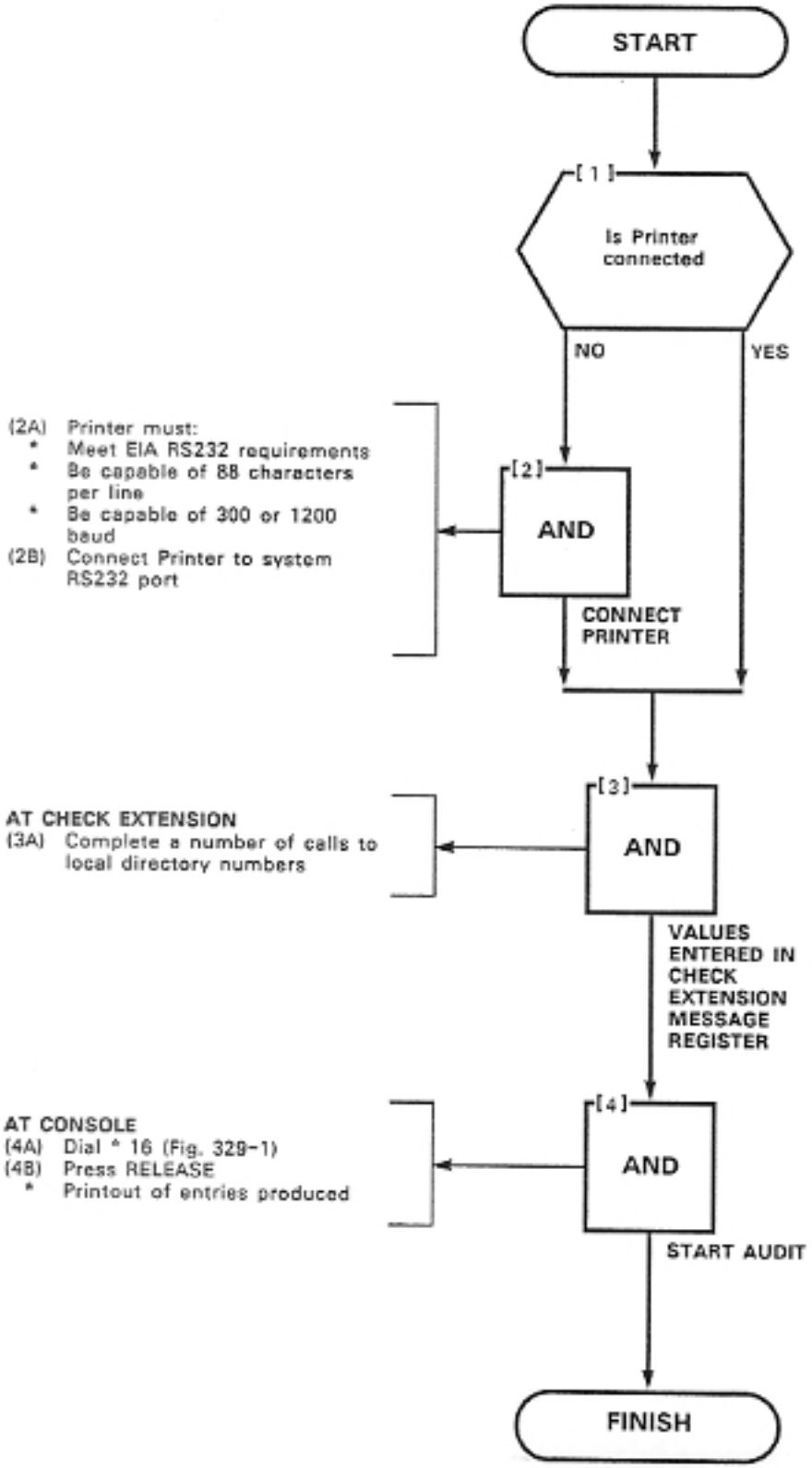
Note: Ensure Printer is not in local mode.



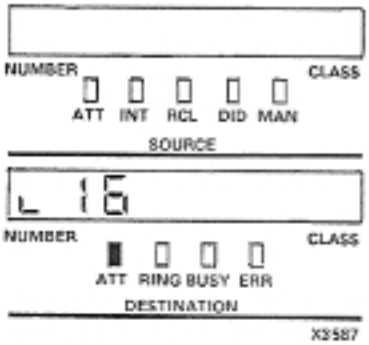


Fig. 329-1

START
AND
AND
AND
FINISH

SYSTEM IDENTIFIER
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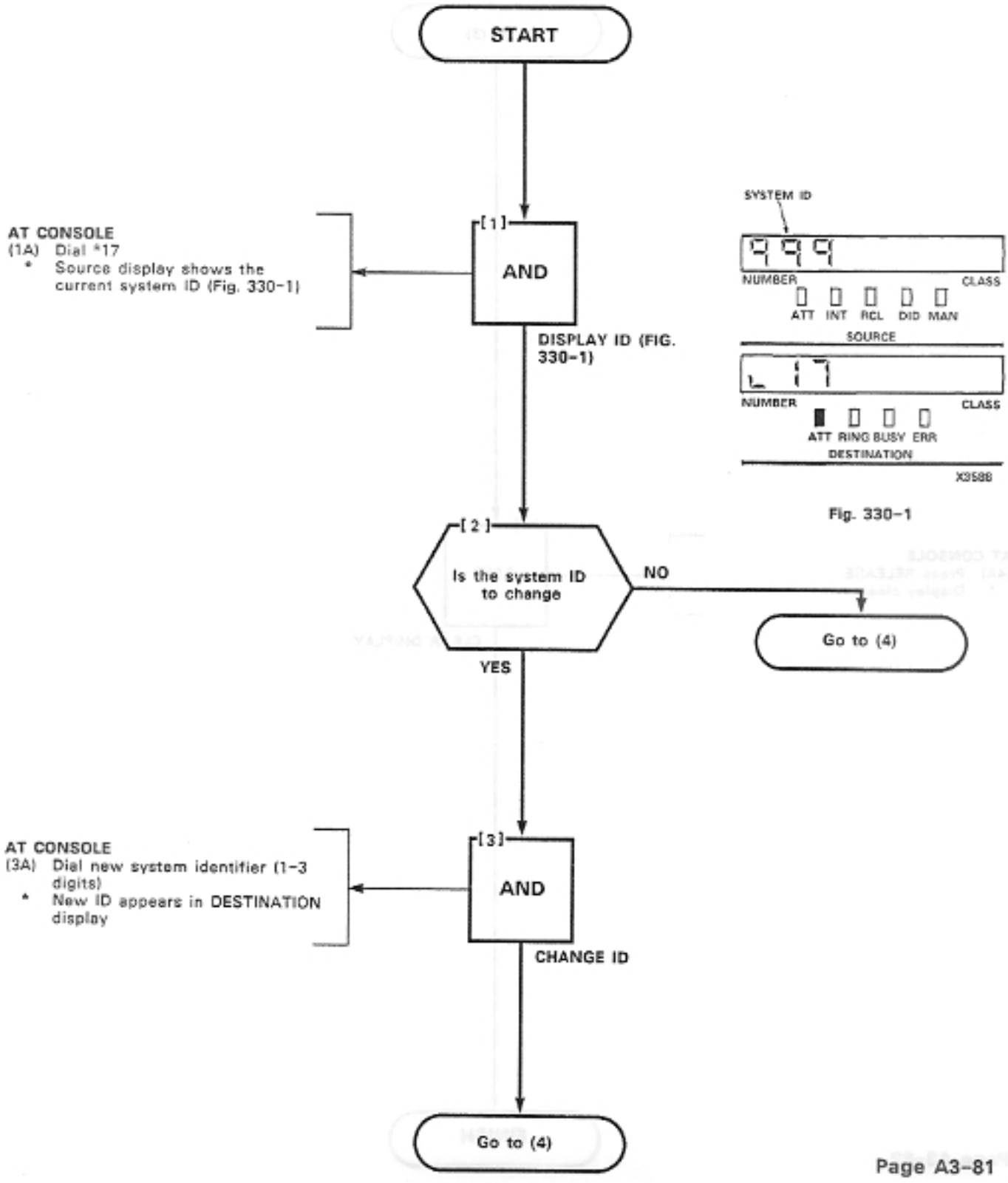

Fig. 330-1

SYSTEM IDENTIFIER
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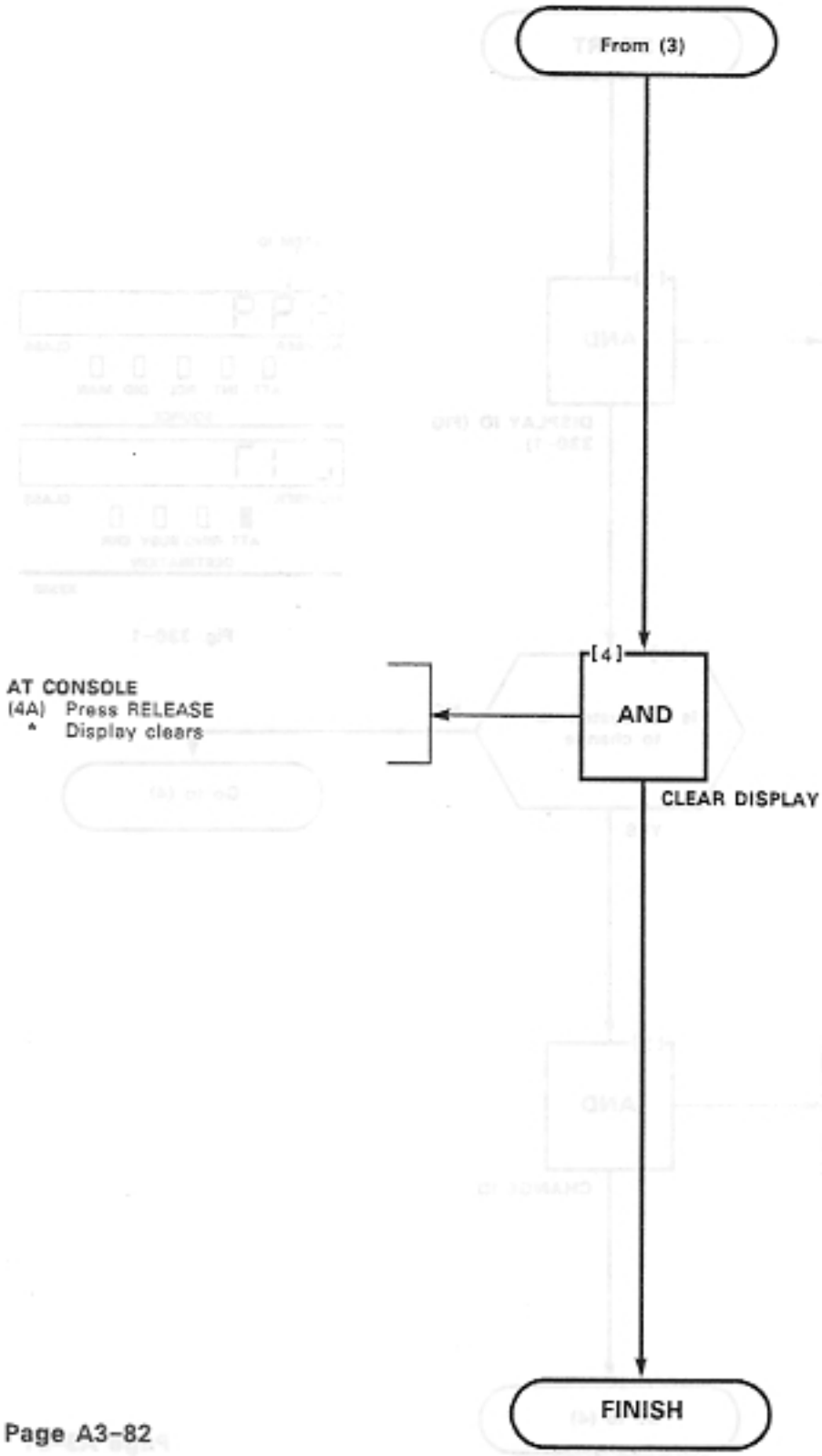

COMMON USE SPEED CALL
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START

TABLE 331-1

Digits	Meaning
*1 *2 *3 (NN)	5 Second pause Wait for dial tone Allows the required number of manual digits to be dialed (NN denotes the required number of defined digits)

(1A) Dial Speed Call access code
(1B) Dial 0
(1C) Dial Speed Call Entry code
(1D) Dial all digits, pauses and manual insertion points (Table 331-1)
* DESTINATION display shows digits entered (most recent the right Fig. 331-1), ATT lamp lit
* Source display shows Speed Call Entry code
(1E) Press RELEASE

[1] AND

TO SET UP A SPEED CALL NUMBER

(2A) Dial Speed Call access code
(2B) Dial number
(2C) Dial Speed Call Entry code
(2D) Dial number
* DESTINATION display shows all digit, pauses and manual insertion digits (Fig. 331-2)
(2E) Continue to dial number until the number has been reviewed
(2F) Press RELEASE

[2] AND

TO REVIEW A SPEED CALL NUMBER

(3A) Dial Speed Call access code
(3B) Dial 0
(3C) Dial Speed Call Entry code
(3D) Press RELEASE

[3] AND

TO CANCEL A SPEED CALL ENTRY

FINISH

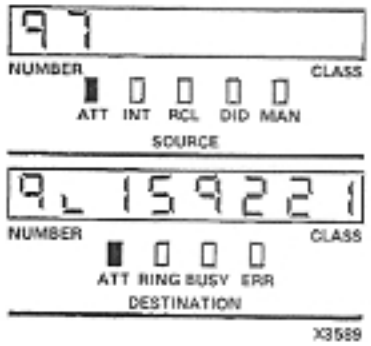


Fig. 331-1

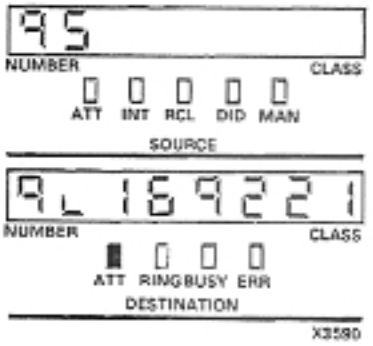
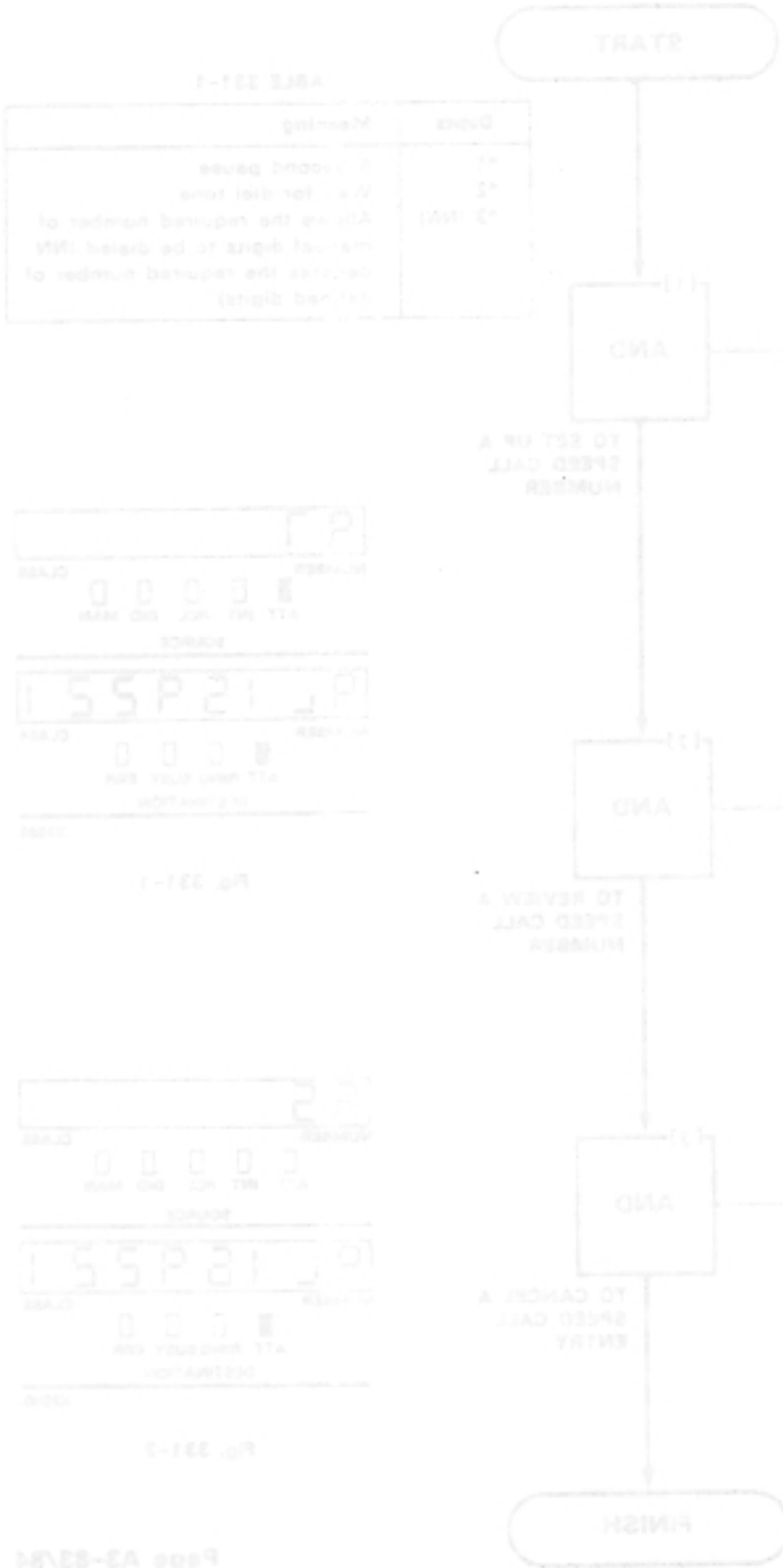


Fig. 331-2


START
AND
AND
AND
FINISH

CUSTOMER PROGRAMMING
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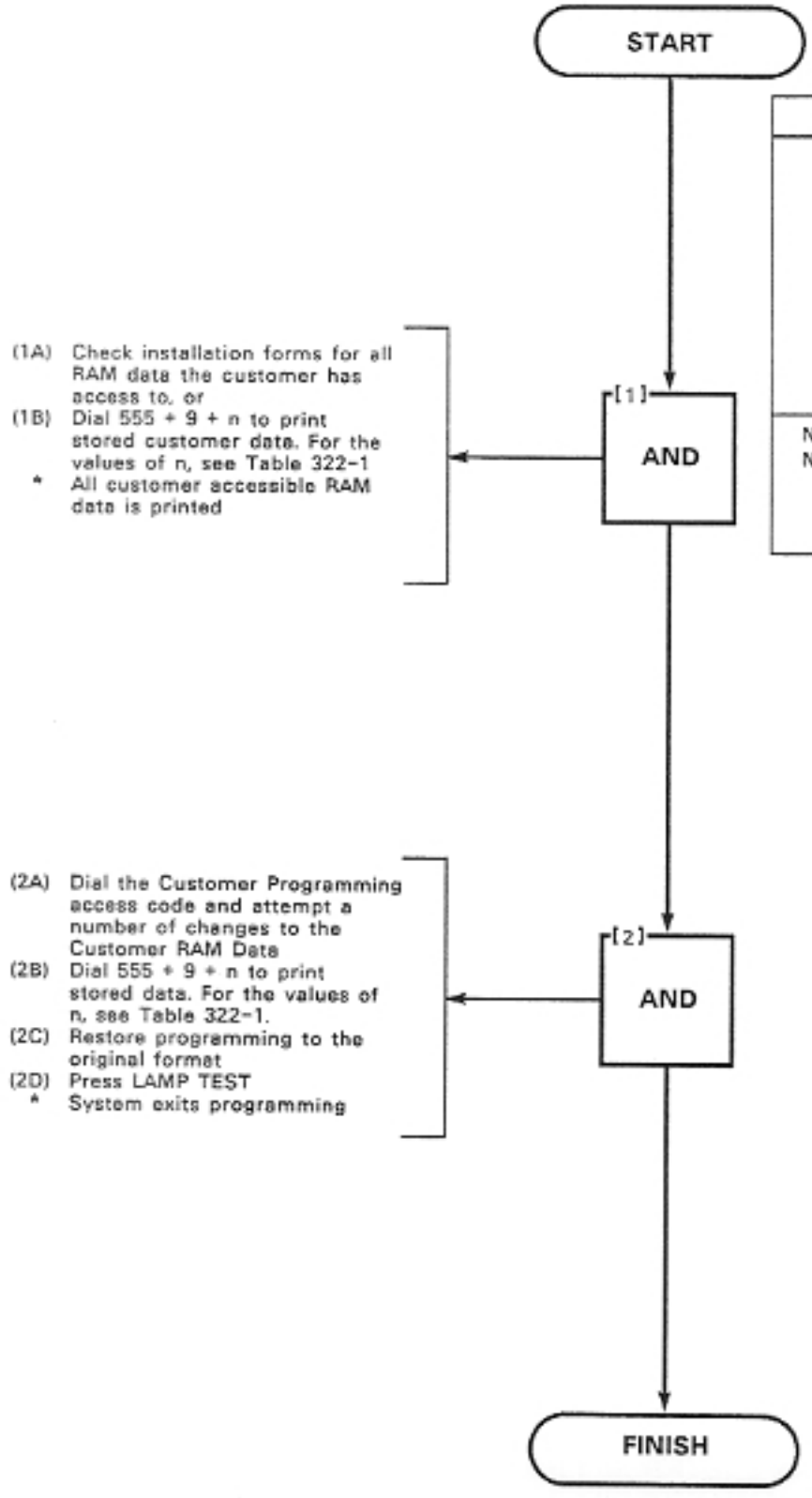

TABLE 332-1

n	Meaning
0	A complete print (Note 1)
1	System Options, Feature Access Codes, Classes of Service, Hunt Groups and Extensions
2	Trunk and Trunk Group Data
3	Special Set Data
4	Toll Control Data
5	Speed Call Data
6	Automatic Route Selection Data
*	System-Wide Data (Note 2)
Note 1	This prints all sections.
Note 2	This will print all data and the system-wide speed call tables and the system special set messages.

START
AND
AND
FINISH

EXTERNAL CALL FORWARDING
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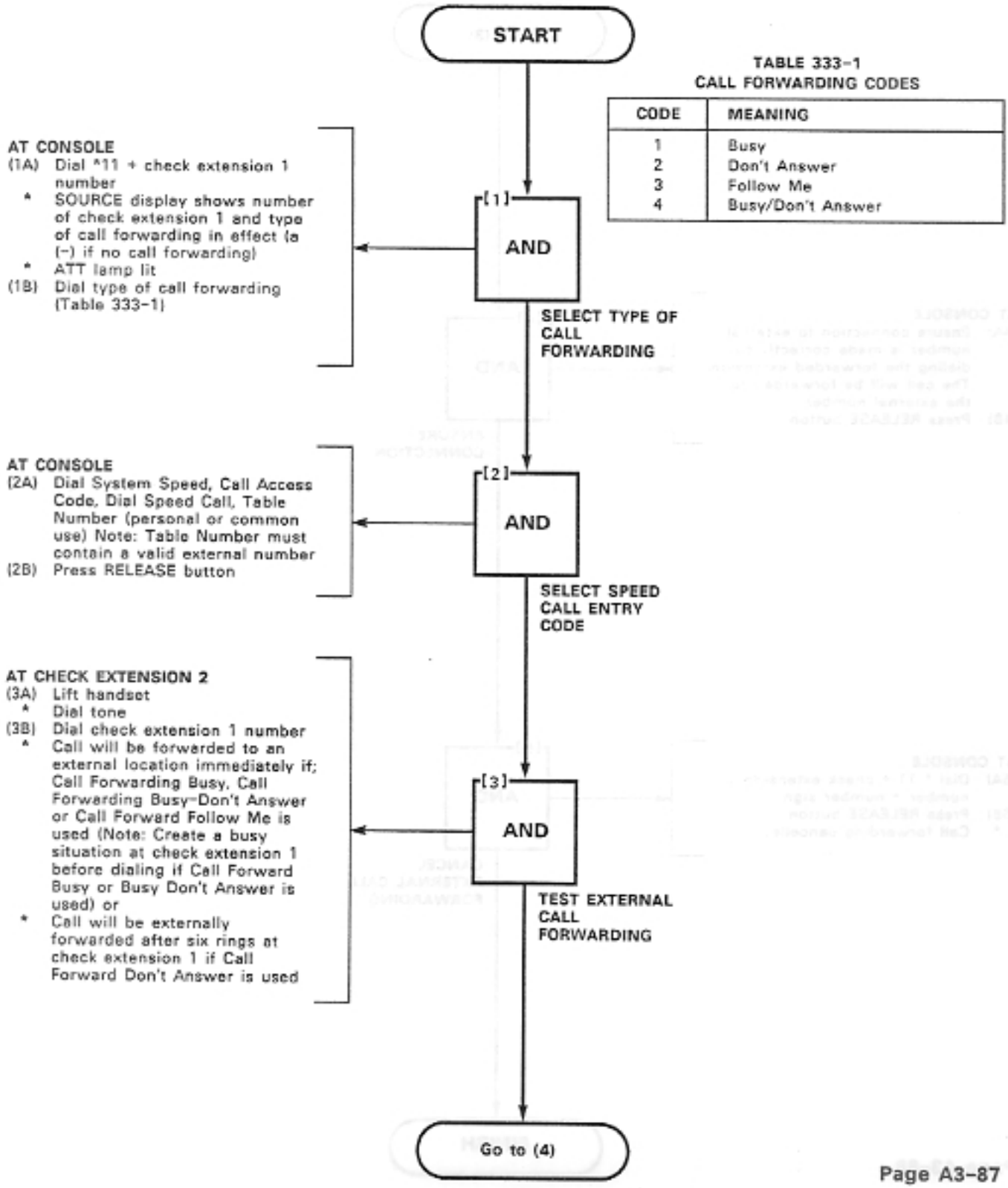

TABLE 333-1
CALL FORWARDING CODES

CODE	MEANING
1	Busy
2	Don't Answer
3	Follow Me
4	Busy/Don't Answer

EXTERNAL CALL FORWARDING
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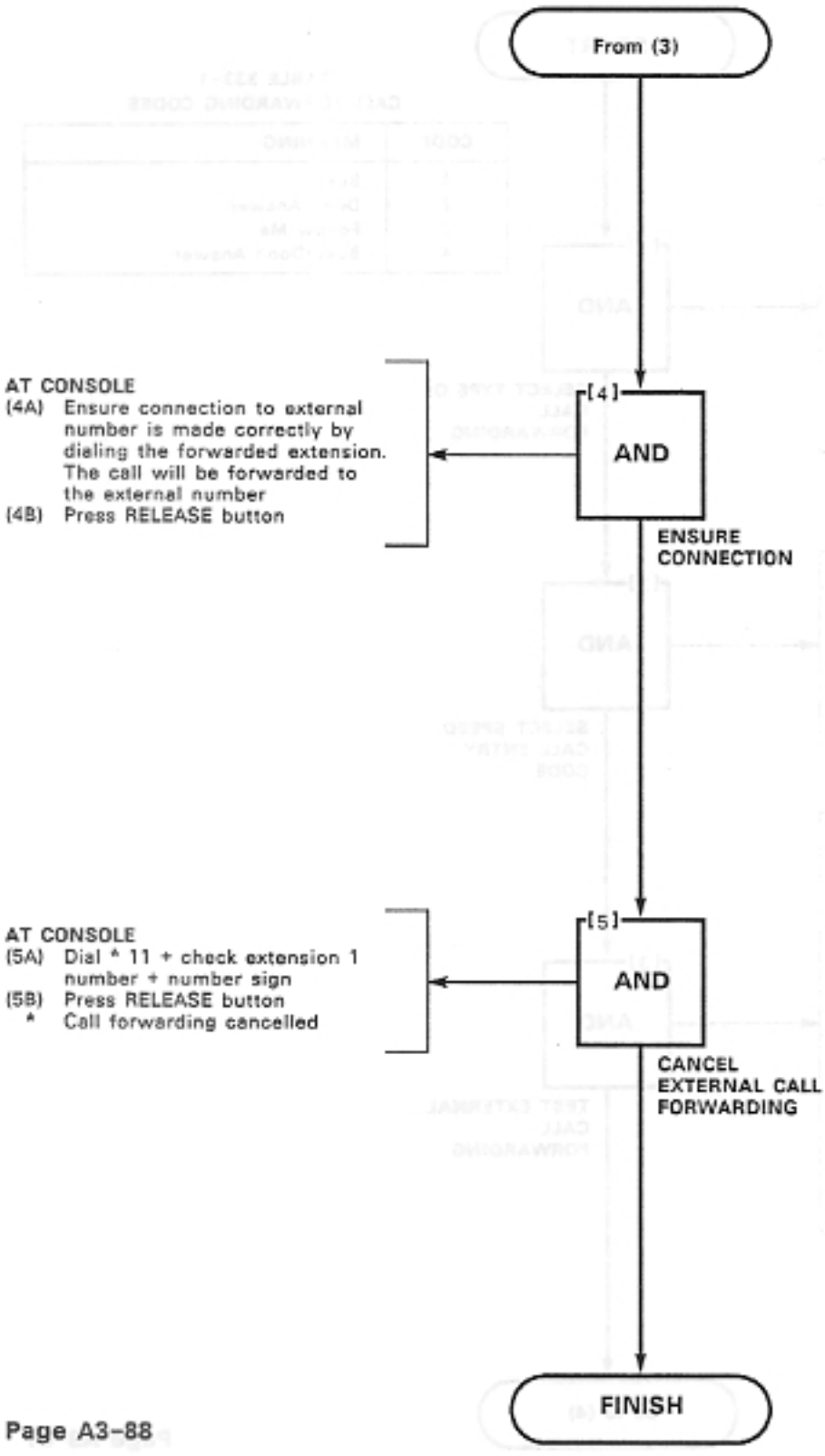

TEST AUDIBLE TONE INDICATORS
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START

(1A) Press the NIGHT 1 button
* System in Night 1

[1] AND

ACTIVATE NIGHT 1

(2A) Press and hold the LAMP TEST button if it is not in the silent mode. Press it again (display shows 8's)

[2] AND

ACTIVATE SILENT LAMP TEST BUTTON

(3A) While holding the LAMP TEST button in the silent position push the NIGHT 1 button
* Ringer sounds (indication that NIGHT 1 is active)

[3] AND

TEST FOR NIGHT 1 ACTIVE

Go to (4)

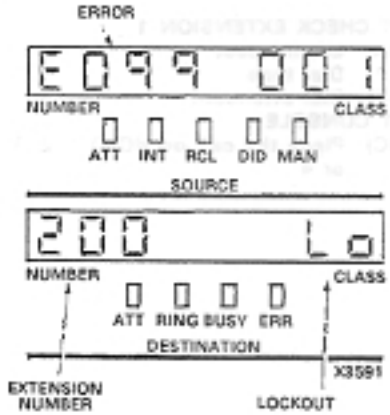

Fig. 334-1
Lockout Display

TEST AUDIBLE TONE INDICATORS
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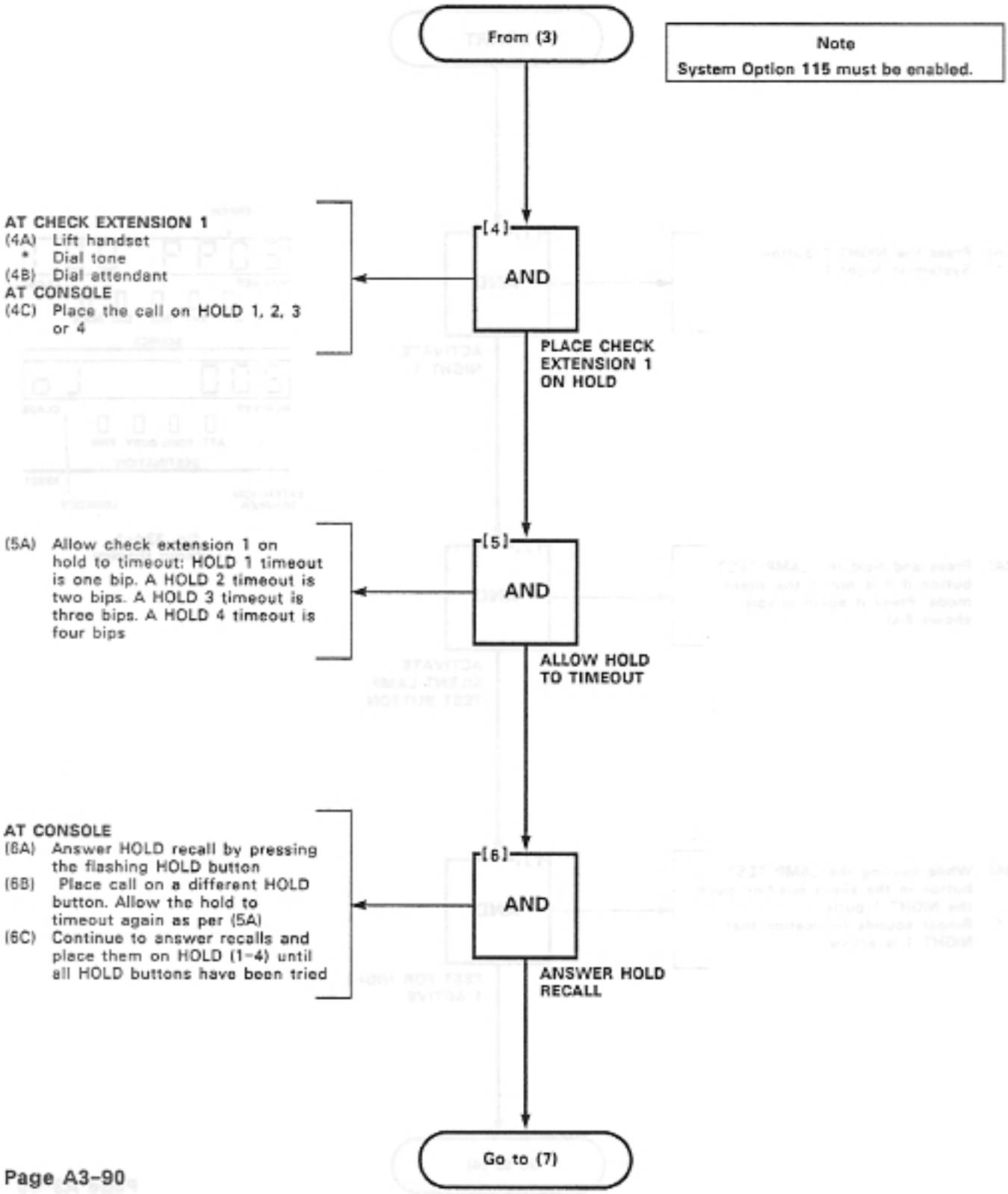

TEST AUDIBLE TONE INDICATORS
MAP215-334
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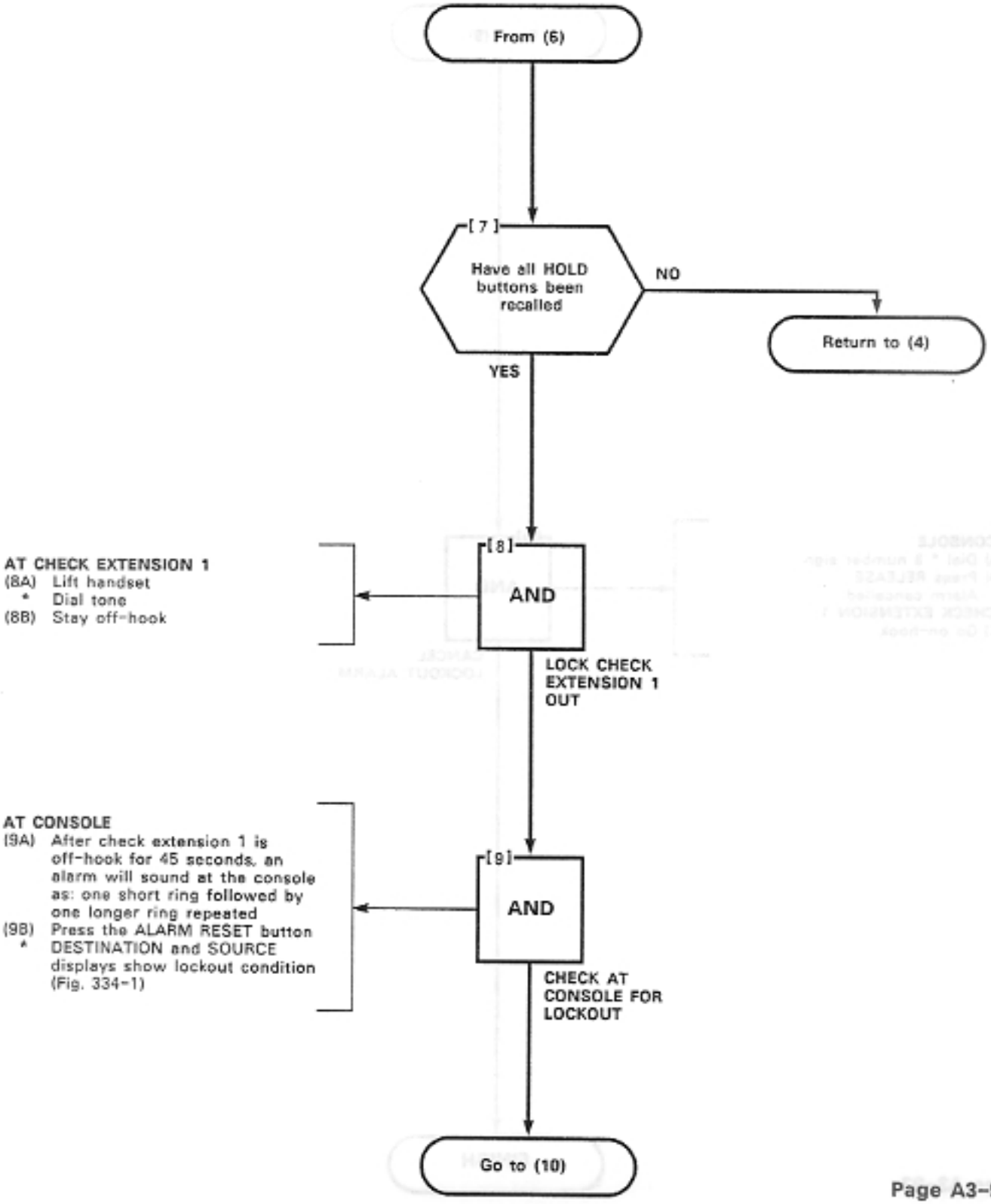
Sheet 3 of 4



TEST AUDIBLE TONE INDICATORS
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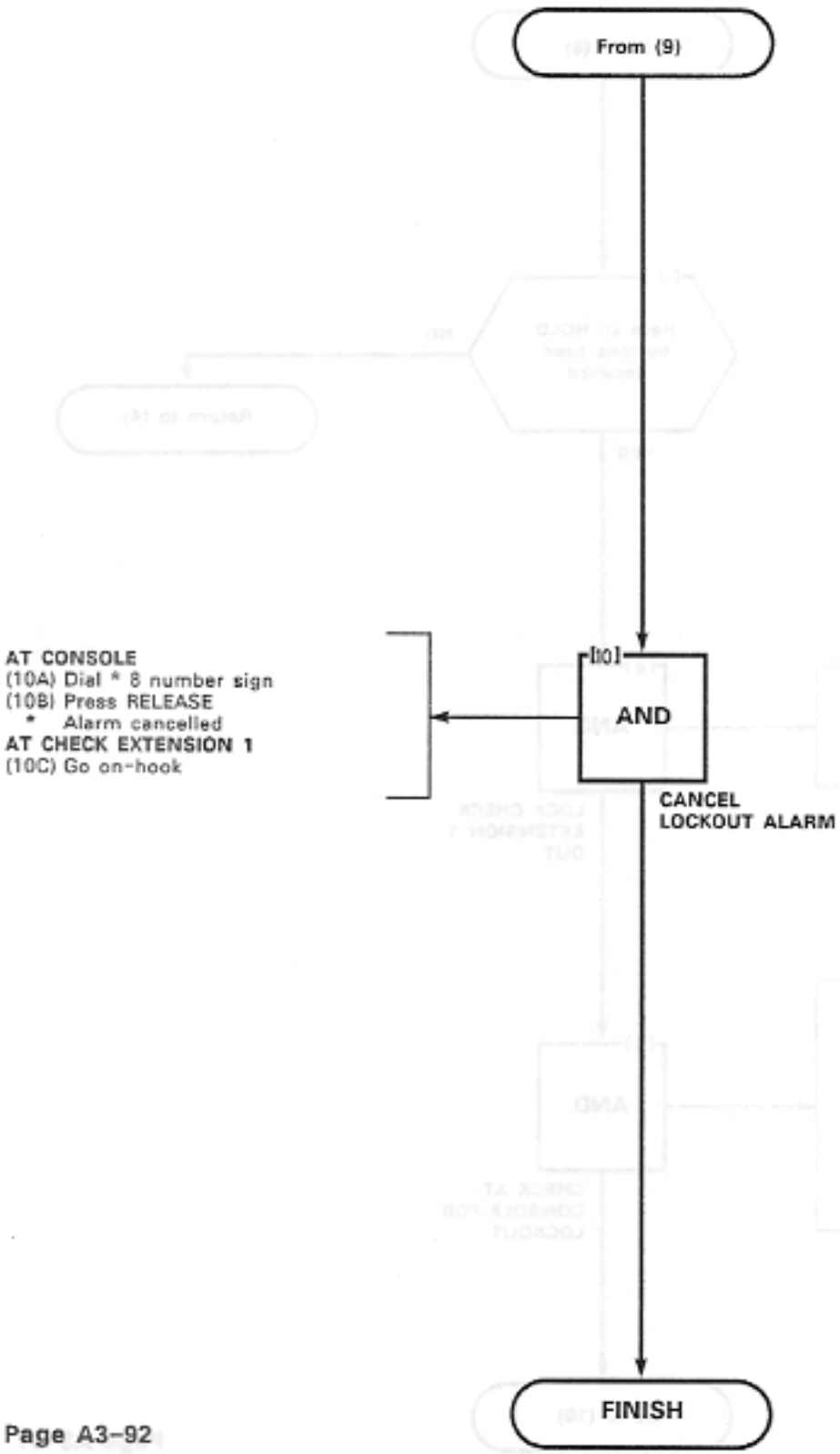
Sheet 4 of 4



SINGLE DIGIT DIALING
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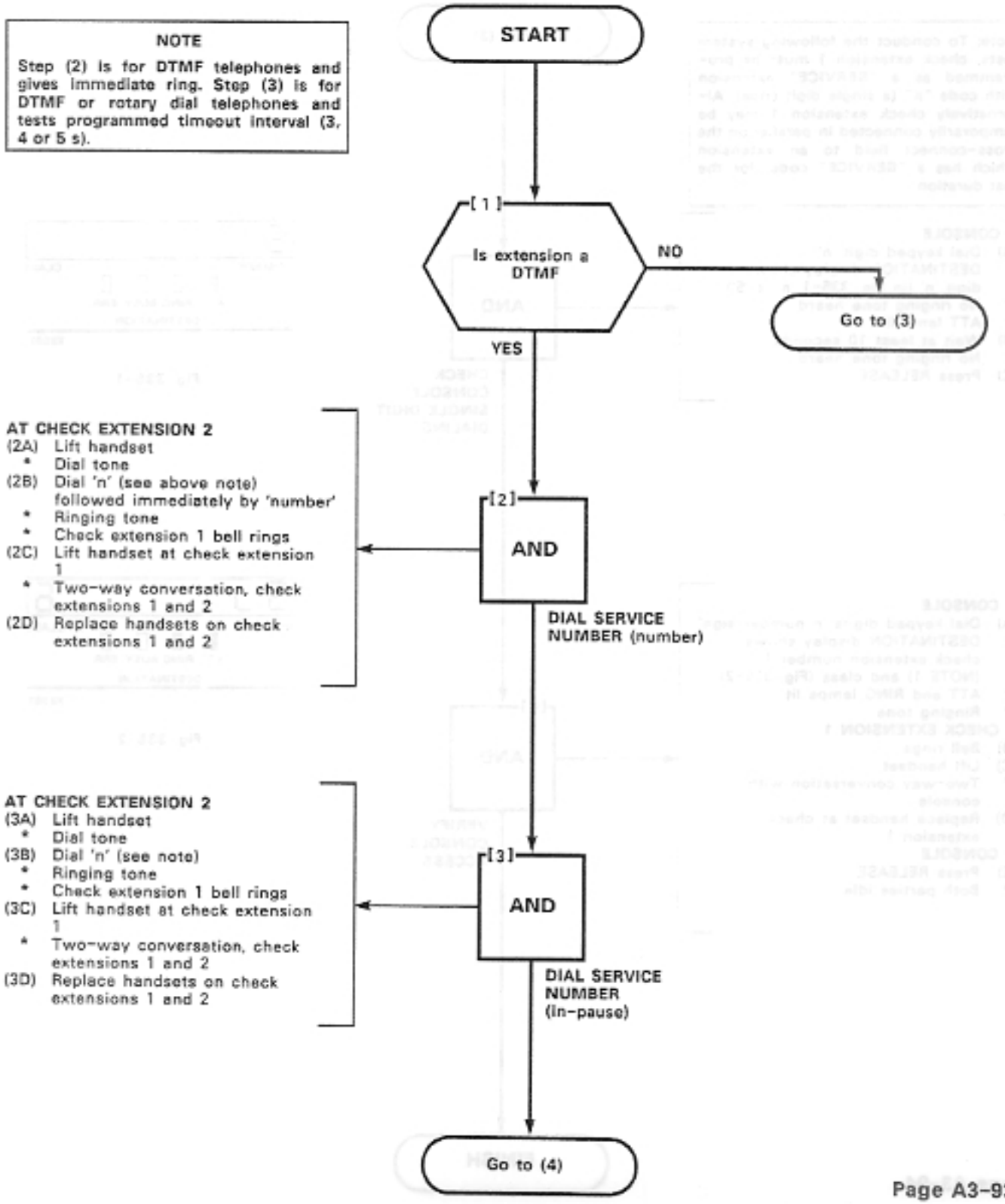
Sheet 1 of 2



SINGLE DIGIT DIALING
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Note: To conduct the following system tests, check extension 1 must be programmed as a "SERVICE" extension with code "n" (a single digit code). Alternatively check extension 1 may be temporarily connected in parallel on the cross-connect field to an extension which has a "SERVICE" code, for the test duration.

From (3)

[4] AND

AT CONSOLE
(4A) Dial keypad digit 'n'
* DESTINATION display shows digit 'n' (in Fig. 335-1 'n' is '5')
* No ringing tone heard
* ATT lamp lit
(4B) Wait at least 10 seconds
* No ringing tone heard
(4C) Press RELEASE

CHECK CONSOLE SINGLE DIGIT DIALING

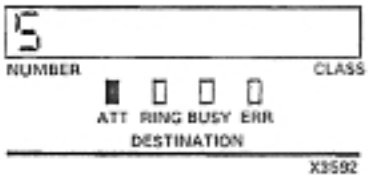

Fig. 335-1

[5] AND

AT CONSOLE
(5A) Dial keypad digits 'n number sign'
* DESTINATION display shows check extension number 1 (NOTE 1) and class (Fig. 335-2)
* ATT and RING lamps lit
* Ringing tone
AT CHECK EXTENSION 1
(5B) Bell rings
(5C) Lift handset
* Two-way conversation with console
(5D) Replace handset at check extension 1
AT CONSOLE
(5E) Press RELEASE
* Both parties idle

VERIFY CONSOLE ACCESS

Fig. 335-2

FINISH

COMMON ALERTING DEVICES
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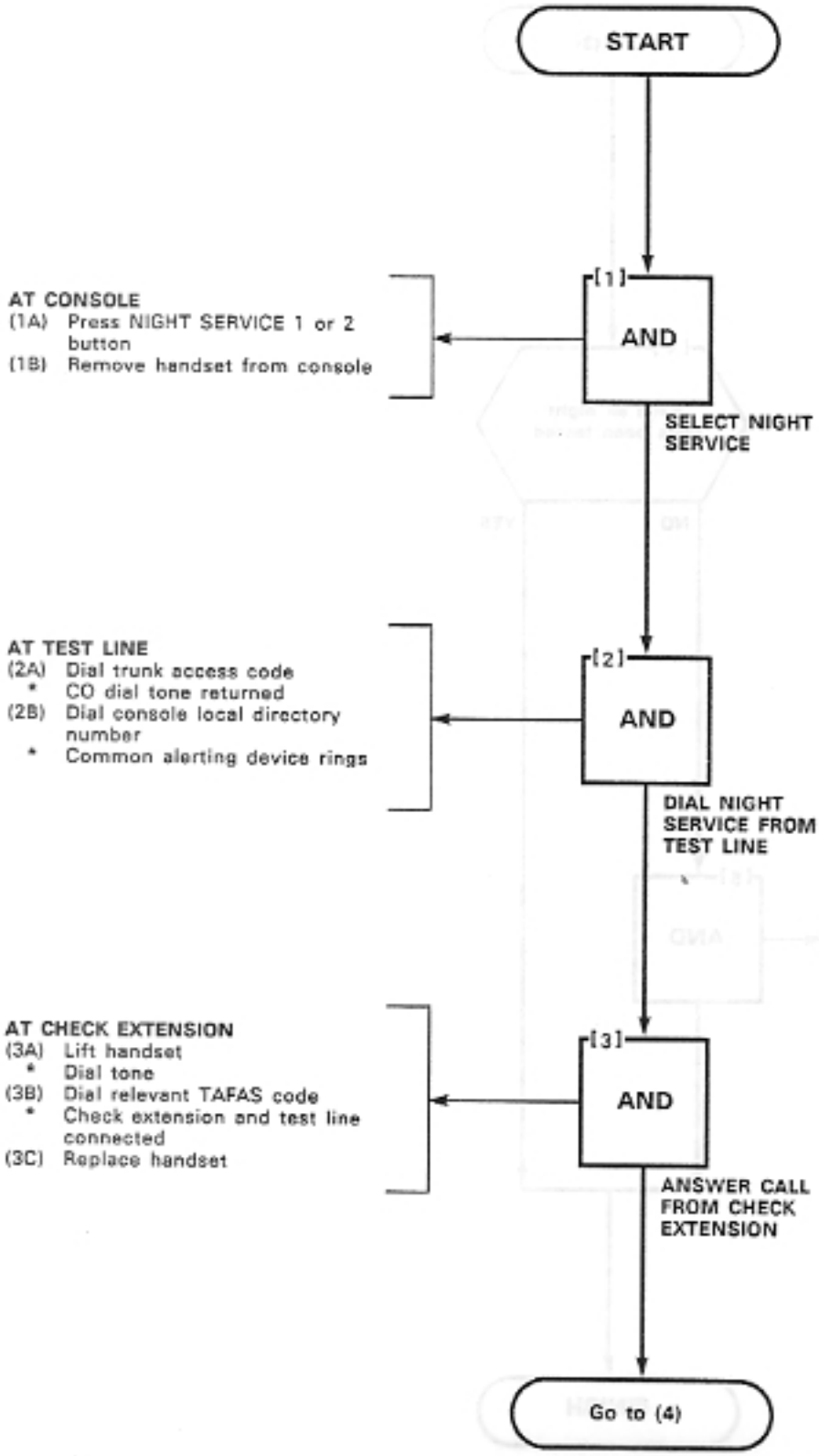

COMMON ALERTING DEVICES
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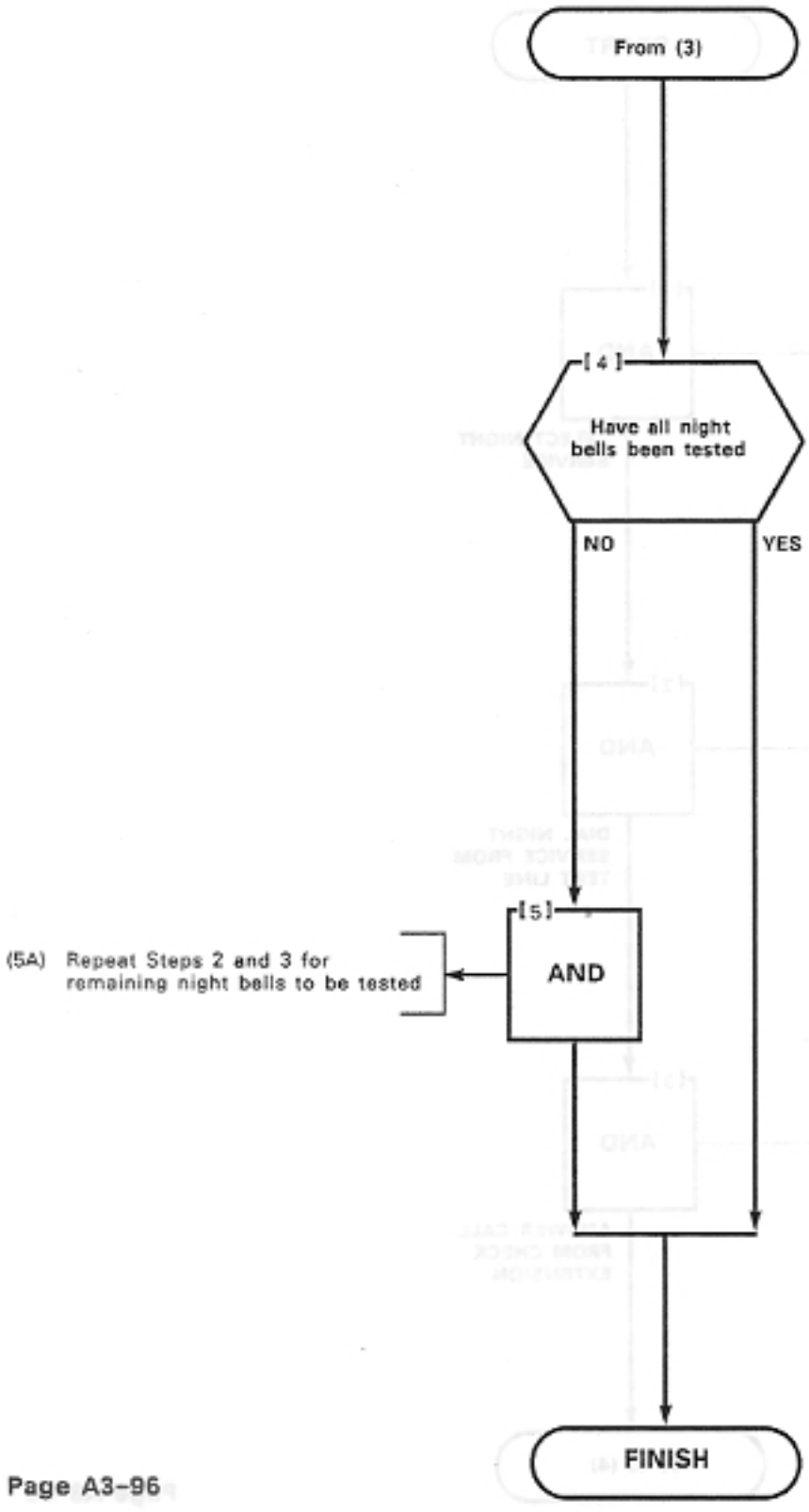

ANSWER DID TRUNK CALL
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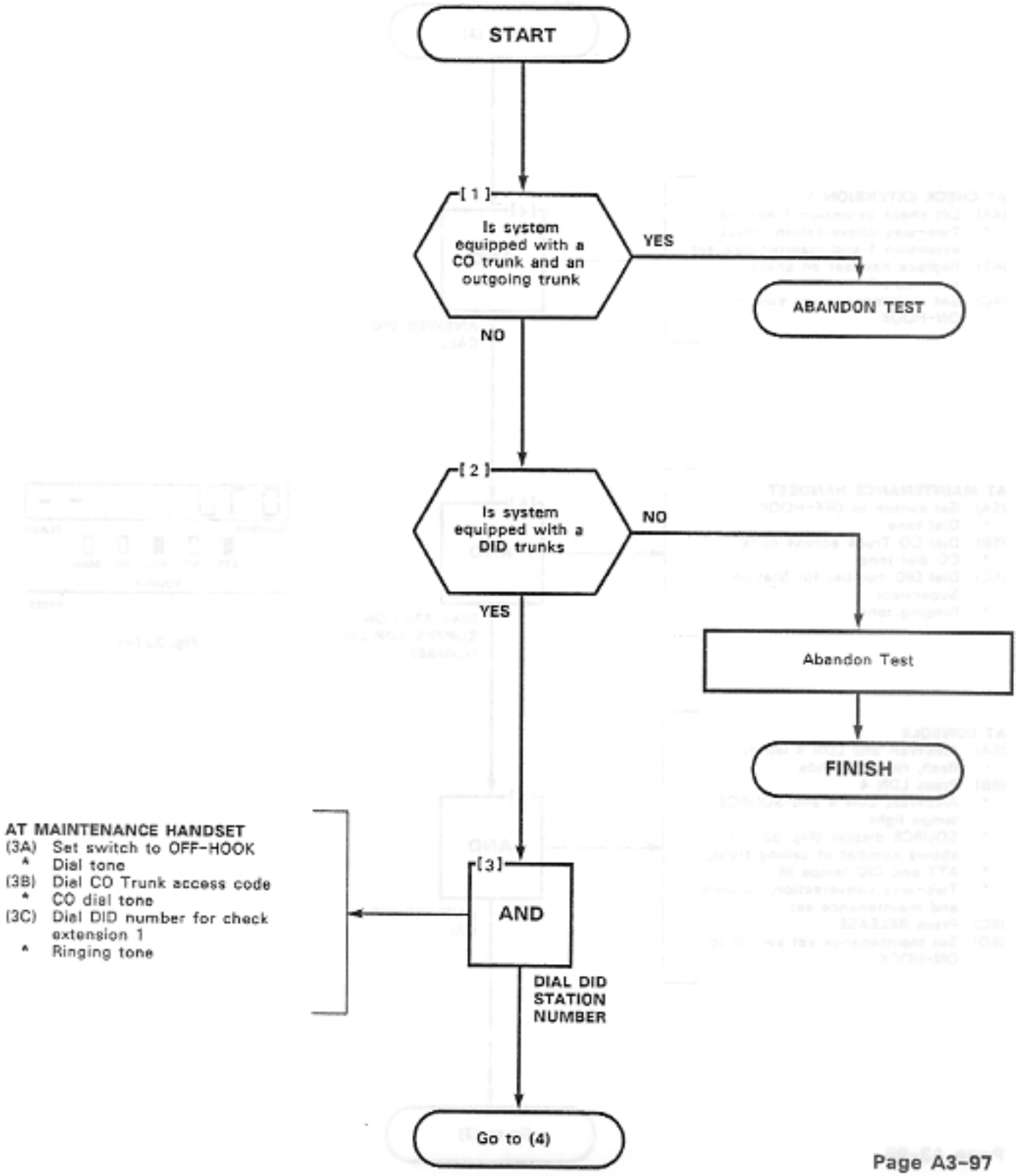

ANSWER DID TRUNK CALL
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From (3)

AT CHECK EXTENSION 1
(4A) Lift check extension 1 handset
* Two-way conversation, check extension 1 and maintenance set
(4B) Replace handset on check extension 1
(4C) Set maintenance set switch to ON-HOOK

[4] AND

ANSWER DID CALL

AT MAINTENANCE HANDSET
(5A) Set switch to OFF-HOOK
* Dial tone
(5B) Dial CO Trunk access code
* CO dial tone
(5C) Dial DID number for Station Supervisor
* Ringing tone

[5] AND

DIAL STATION SUPERVISOR DID NUMBER

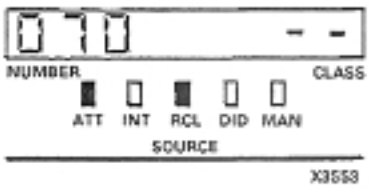

Fig. 337-1

AT CONSOLE
(6A) ANSWER and LDN 4 lamps flash, ringer sounds
(6B) Press LDN 4
* ANSWER, LDN 4 and SOURCE lamps light
* SOURCE display (Fig. 337-1) shows number of calling trunk
* ATT and DID lamps lit
* Two-way conversation, console and maintenance set
(6C) Press RELEASE
(6D) Set maintenance set switch to ON-HOOK

[6] AND

ANSWER DID CALL

Go to (7)

ANSWER DID TRUNK CALL
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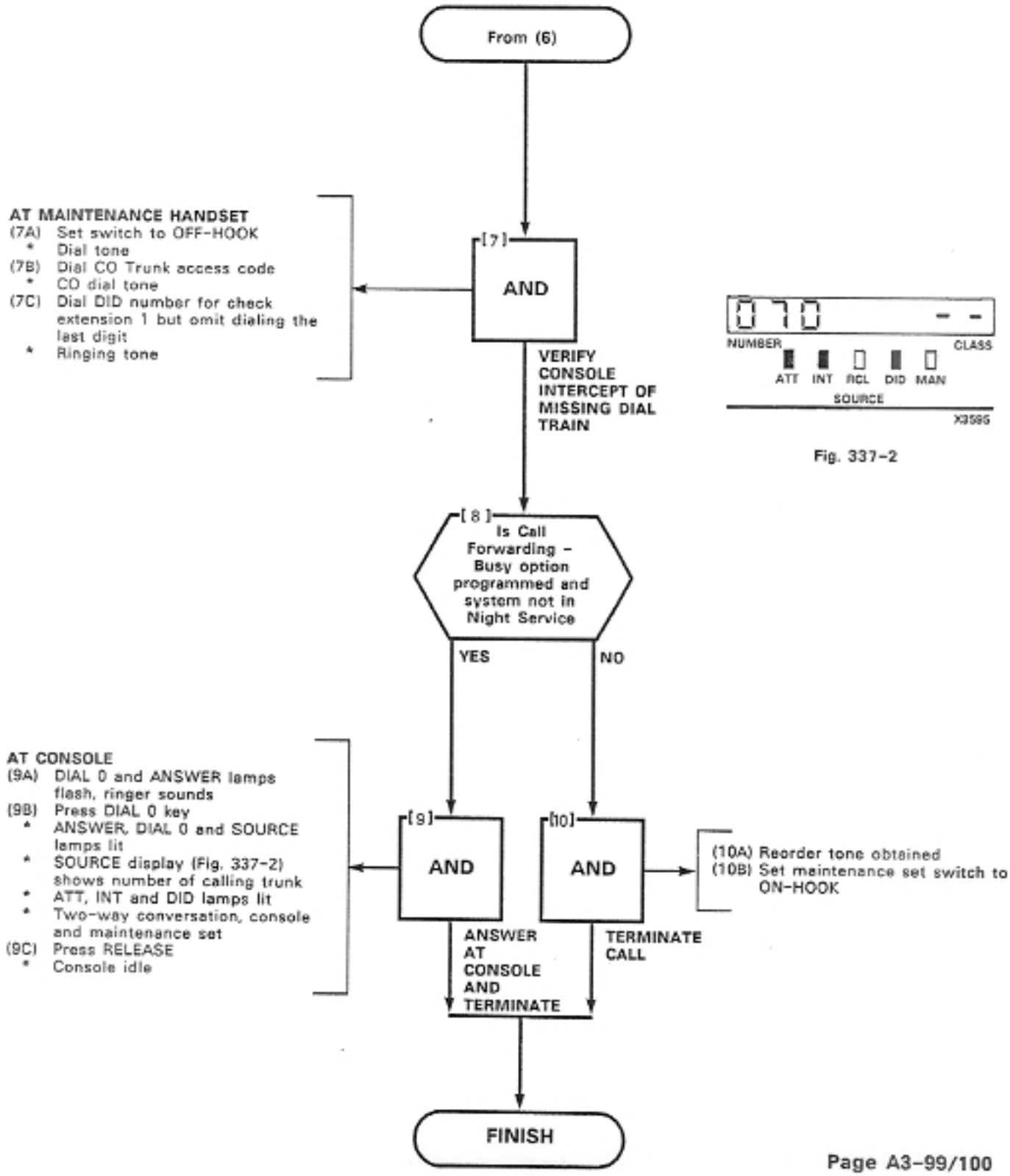

Fig. 337-2

SUPERSET DISCONNECT
MAP215-338
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Sheet 1 of 1

START

[1] AND

(1A) Disconnect the SUPERSET modular plug
(1B) NOTE: System Option 330 must be enabled.

DISCONNECT SUPERSET

[2] AND

(2A) A minor alarm will appear at the console.
(2B) Press the IDENT button (Fig. 338-1)
(2C) Release the IDENT button and cancel alarm by dialing * 8 and octothorp
(2D) Press RELEASE button

CANCEL ALARM

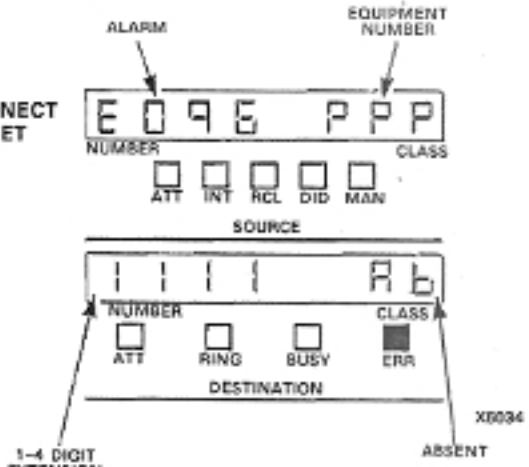


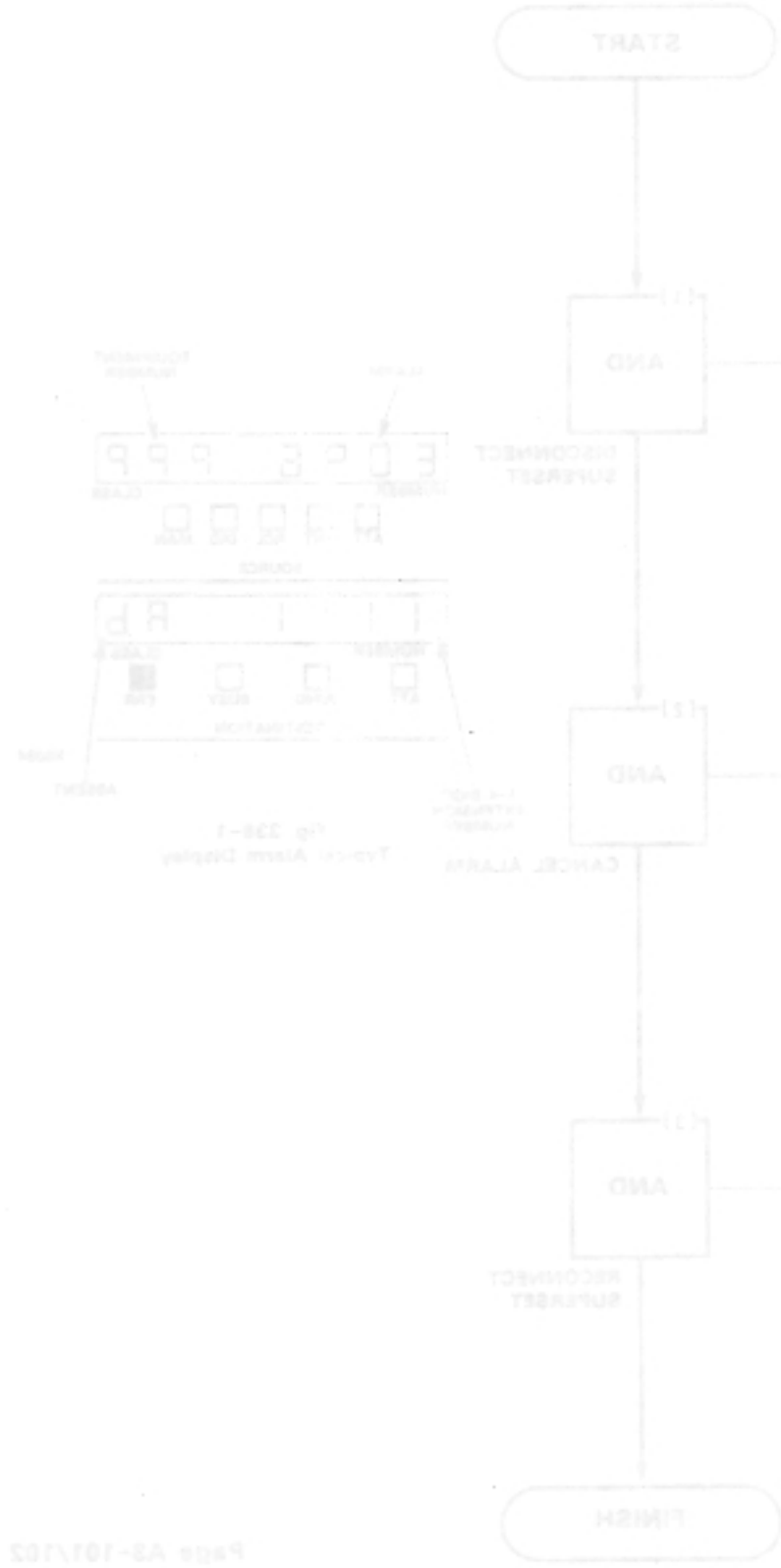
Fig. 338-1
Typical Alarm Display

[3] AND

(3A) Reconnect the modular plug to the SUPERSET

RECONNECT SUPERSET

FINISH


START
AND
AND
AND
FINISH

SX-100*/SX-200*
SUPERSWITCH*
AUTOMATIC CALL DISTRIBUTION SYSTEM
EXTENSION TEST PROCEDURES
GENERIC ACD

CONTENTS PAGE

CONTENTS PAGE

1. GENERAL

1.01 This Section describes the extension test procedures for SX-100/SX-200 Automatic Call Distribution (ACD) Systems. These procedures should be performed as operational tests, upon installation of extensions after the initial system installation. See Section MITL9105/9110-090-200-NA for system installation instructions.

Reason for Issue

1.02 This practice has been issued to include Generic ACD information requiring an extension test procedure.

SUPERSET 4

1.03 For SUPERSET 4 extension test procedures, see APPENDIX 1.

SUPERSET 3

1.04 For SUPERSET 3 test procedures see APPENDIX 2.

2. TEST AND OPERATIONAL PROCEDURES

General

2.01 Satisfactory completion of the extension test procedures confirms that the apparatus has been installed and programmed correctly.

2.02 If any operating procedure cannot be completed as described, verify that:

- The procedure is applicable to the extension (i.e. the feature being tested is assigned to the extension).
- The apparatus which provides the feature (e.g. Music on Hold) is correctly installed.

Operating Procedures

2.03 Chart 2-1 should be performed on each extension. Charts 2-2 through 2-28 should be performed once per system.

CHART 2-1
STATION-TO-STATION CALL

Step	Action	Verification
Called station idle:		
1.	Lift handset.	Dial tone returned.
2.	Dial any extension number.	Dial tone removed after first digit; ringback tone heard after completion of dialing.
3.	Called extension answers.	Ringback tone removed; 2-way conversation.
4.	Called and calling extensions replace handsets.	
Called station busy (enable Callback Busy):		
5.	Lift handset.	Dial tone returned.
6.	Dial originating extensions number.	Busy tone returned.
7.	Dial Callback code.	Dial tone returned.
8.	Replace handset.	
9.	Busy extension goes on-hook.	Original extension rings.
10.	Original extension answers.	Ringback tone returned; called extension rings.
11.	Called extension answers.	Two-way conversation.
Called station busy (member of a hunt group):		
12.	Lift handset.	Dial tone returned.
13.	Dial Hunt Group access code.	Dial tone removed after first digit; ringback tone heard; next free extension of group is rung.
14.	Free extension answers.	Ringback tone removed; 2-way conversation.
15.	Extensions replace handset.	

CHART 2-2
HUNT GROUP

Step	Action	Verification
First station idle (Terminal):		
1.	Lift handset.	Dial tone returned.
2.	Dial Hunt Group access code.	Dial tone removed after first digit; ringback tone heard upon completion of dialing. First extension in group hears ringing.
3.	First extension answers.	Ringback tone removed; 2-way conversation.
First station busy (Terminal):		
4.	Repeat Steps 1 and 2.	Next idle extension in group hears ringing.
5.	Next idle extension answers.	Ringback tone removed, 2-way conversation.
Hunt groups (Circular):		
6.	Repeat Steps 1 and 2.	Hunting starts at the extension after the last extension rung in the group. System will ring first idle extension in the hunt group; if no idle extension is found, busy tone is returned.

CHART 2-3
BROKER'S CALL

Step	Action	Verification
Extension in conversation wishes a private alternative conversation after flashing switchhook:		
1.	Flash switchhook.	Transfer dial tone returned.
2.	Extension dials number of third party.	Third party phone rings.
3.	Third party answers.	Extension and third party may now converse in private.
4.	Extension flashes switchhook.	Extension returns to original (1st) party.
5.	Third party is on hold. Extension may alternate between conversations by flashing switchhook.	The three parties CANNOT be joined together in one conversation.

CHART 2-4
CALL HOLD

Step	Action	Verification
To set up a Call Hold:		
1.	Extension in conversation wishes to put call on hold, flashes switchhook.	No tones or sound heard by extension on hold unless Music on Hold is provided. Flashing extension recieves transfer dial tone.
2.	Extension dials Call Hold code.	Dial tone returned.
3.	Extension replaces handset.	Extension is now free to make or receive calls.
To retrieve the call at the original extension:		
4.	Extension lifts handset.	Dial tone returned.
5.	Extension dials Call Hold Local Retrieve code.	Extension connected to call on hold.
To retrieve a call at another extension:		
6.	Extension lifts handset.	Dial tone returned.
7.	Extension dials Call Hold Remote Retrieve code.	No tones or sound heard.
8.	Extension dials Call Holding extension's number.	Extension connected to call on hold.
To use Call Hold as a Broker feature:		
9.	Perform Steps 1, 2 and 3 under "To set up a Call Hold".	
10.	Extension lifts handset.	Dial tone returned.
11.	Extension dials third party.	Ringback tone heard; third extension's phone is ringing.
12.	Third party answers.	Conversation takes place.
13.	Extension flashes switchhook.	Transfer dial tone is returned.
14.	Extension dials Call Hold code.	Third party is placed on hold, second party is retrieved.

CHART 2-4 (CONT'D)
CALL HOLD

Step	Action	Verification
15.	Controlling extension may repeat Steps 13 and 14 as often as required.	Each repetition exchanges the party on hold with the one in the conversation.
To join all three parties into one conversation:		
16.	Extension flashes switchhook on second extension.	Transfer dial tone returned.
17.	Extension dials Call Hold Retrieve code.	Extension connected to third party.
18.	Extension flashes switchhook.	Three parties in conversation.

Note: A conference CANNOT be put on Call Hold.

CHART 2-5
CALL FORWARDING - BUSY

Step	Action	Verification
To set up Call Forwarding - Busy:		
1.	Forwarding extension lifts handset.	Dial tone returned.
2.	Extension dials Call Forwarding - Busy code, and number of extension to which calls are to be forwarded (calls may also be forwarded to the Supervisor).	Dial tone returned; forwarding successful.
3.	Extension replaces handset.	
To test Call Forwarding - Busy:		
4.	At extension in Steps 1-3 lift handset.	Dial tone returned.
5.	At an alternate extension lift the handset.	Dial tone returned.
6.	Dial extension with Call Forwarding - Busy in effect.	Ringback tone returned; extension that was forwarded to, rings.
7.	Replace handset.	
To cancel a Call Forwarding - Busy:		
8.	Extension lifts handset.	Dial tone returned.
9.	Extension dials Call Forwarding - Busy code.	No tones or sound heard.
10.	Extension replaces handset.	Cancellation complete.
To test cancellation:		
11.	Repeat Step 4.	Busy tone returned.
12.	Replace handset.	

CHART 2-6
CALL FORWARDING - DON'T ANSWER

Step	Action	Verification
To set up Call Forwarding - Don't Answer:		
1.	Extension lifts handset.	Dial tone returned.
2.	Extension dials Call Forwarding - Don't Answer code and number of extension to which calls are to be forwarded (calls may also be forwarded to the Supervisor).	Dial tone returned; forwarding successful.
3.	Extension replaces handset.	
To test Call Forwarding - Don't Answer:		
4.	At an alternate extension lift the handset.	Dial tone returned.
5.	Dial extension with Call Forwarding - Don't Answer in effect.	Ringback tone returned. Do not answer the call after a time-out. The call will be transferred to the extension selected in 2.
6.	Replace handset.	
To cancel Call Forwarding - Don't Answer:		
7.	Extension lifts handset.	Dial tone returned.
8.	Extension dials Call Forwarding - Don't Answer code.	No tones or sound heard.
9.	Extension replaces handset.	Cancellation complete.
To test cancellation:		
10.	Repeat Steps 4 and 5.	Extension dialled rings normally.
11.	Replace handset.	

CHART 2-7
CALL FORWARDING - FOLLOW ME

Step	Action	Verification
To set up Call Forwarding - Follow Me:		
1.	Extension lifts handset.	Dial tone returned.
2.	Extension dials Call Forwarding - Follow Me code and number of extension to which calls are to be forwarded (calls may also be forwarded to the Supervisor).	Dial tone returned; forwarding successful.
3.	Extension replaces handset.	
To test Call Forwarding - Follow Me:		
4.	At an alternate extension lift the handset.	Dial tone returned.
5.	Dial the extension with Call Forwarding - Follow Me in effect.	Ringback tone returned; extension that was forwarded to, rings.
6.	Replace handset.	
To cancel Call Forwarding - Follow Me:		
7.	Originating extension lifts handset.	Dial tone returned.
8.	Originating extension dials Call Forwarding - Follow Me code.	No tones or sound heard.
9.	Extension replaces handset.	Cancellation complete.

CHART 2-8
OVERRIDE

Step	Action	Verification
1.	Establish a 2-party call.	Talking connection.
2.	Extension lifts handset.	Busy tone returned.
3.	Dial busy extension.	Busy tone returned.
4.	Calling extension dials Override code.	Parties in conversation hear a 1 second warning tone unless the COS of one or more of them prevents being overridden. After beep, calling extension is in conversation. All extensions will hear a short warning tone every 6 seconds.

CHART 2-9
DIAL CALL PICKUP

Step	Action	Verification
Any extension in the Pickup group is ringing:		
1.	Idle extension lifts handset.	Dial tone returned.
2.	Extension dials Dial Call Pickup code.	Extension is connected to calling party.

CHART 2-10
CAMP-ON

Step	Action	Verification
1.	Establish a 2-party call.	
2.	Extension lifts handset.	Dial tone returned.
3.	Dial busy extension.	Busy tone returned.
4.	Calling extension remains off-hook for more than 10 seconds.	a) Calling extension (after 10 seconds) receives a change in busy tone. b) The dialed extension receives a short warning tone.
5.	Busy extensions hang up.	Dialed extension is rung.

CHART 2-11
AUTOMATIC CALLBACK - BUSY

Step	Action	Verification
1.	Extension lifts handset.	Dial tone returned.
2.	Dial busy extension.	Busy tone returned.
3.	Calling extension dials Automatic Callback - Busy code.	Dial tone returned.
4.	Calling extension replaces handset.	
5.	Called extension replaces handset.	a) Calling extension rings. b) Called extension rings when calling extension answers. c) Calling extension hears ringback tone. d) Two-way conversation.

CHART 2-12
DO NOT DISTURB

Step	Action	Verification
Extension sets up Do Not Disturb:		
1.	Extension lifts handset.	Dial tone returned.
2.	Extension dials Do Not Disturb code followed by 1.	Dial tone returned.
3.	Extension replaces handset.	
4.	Extension is not called while in the Do Not Disturb mode.	A calling extension receives reorder tone or Supervisor intercept.
Extension cancels Do Not Disturb:		
5.	Extension lifts handset.	Dial tone returned.
6.	Extension dials Do Not Disturb code followed by 2.	No tone or sound; Do Not Disturb is cancelled.
7.	Extension replaces handset.	Calling extensions can ring the original extension.

CHART 2-13
CALL PARK/PICKUP

Step	Action	Verification
To park an established call:		
1.	Flash switchhook.	Transfer dial tone returned.
2.	Extension dials Call Park code.	Dial tone returned to parking extension. No tones or sound heard unless music provided to parked extension.
3.	Extension replaces handset.	
To pick up a parked call from the parking extension:		
4.	Extension lifts handset.	Extension connected to parked call.
To pick up a parked call using an alternate extension:		
5.	Lift handset of alternate extension.	Dial tone returned.
6.	Alternate extension dials Call Park/Directed Call Pickup code and number of parking extension.	Alternate extension connected to parked call.

CHART 2-14
PAGING

Step	Action	Verification
1.	Extension lifts handset.	Dial tone returned.
2.	Extension dials Paging zone code.	Extension receives a short warning tone. Extension may now page.
3.	Extension replaces handset.	
Repeat for each of the three codes if assigned.		

CHART 2-15
TRUNK ANSWER FROM ANY STATION

Step	Action	Verification
To answer a TAFAS call:		
1.	Extension user hears Night Bell.	
2.	Extension lifts handset.	Dial tone returned.
3.	Extension dials TAFAS night code.	Extension is connected to trunk call.

CHART 2-16
CONSULTATION HOLD/TRANSFER/ADD-ON

Step	Action	Verification
	CONSULTATION HOLD	
Established call:		
1.	Extension flashes switchhook.	a) Flashing extension receives transfer dial tone. b) Second extension in conversation is put on hold, and hears music if provided.
2.	Extension which flashed, dials third extension.	Third extension rings.
3	Third extension answers.	Effecting extension and third extension are connected. Second extension remains on hold.
	TRANSFER	
To idle extension:		
4.	Perform Steps 1 and 2 in Consultation Hold.	Third extension rings.
5.	Extension effecting transfer replaces handset.	Extension on hold receives ringing tone, and is connected to third extension when it is answered.
To busy extension:		
6.	Perform Steps 1 and 2 in Consultation Hold.	Third extension busy, effecting extension receives busy tone.
7.	Extension effecting transfer replaces handset.	Extension on hold receives busy tone and is camped-on to busy line after 10 seconds.
During consultation:		
8.	Perform Steps 1 to 3 in Consultation Hold.	Effecting extension and third extension converse.
9.	Effecting extension hangs up.	Extension on hold and third extension are connected.

CHART 2-16 (CONT'D)
CONSULTATION HOLD/TRANSFER/ADD-ON

Step	Action	Verification
	ADD-ON	
10.	Perform Steps 1 to 3 in Consultation Hold.	Effecting extension and third extension connected. Second extension remains on hold.
11.	Effecting extension flashes switchhook.	All three extensions connected.
After 3-way consultation:		
12.	Perform Steps 1 to 3 in Consultation Hold.	Effecting extension and third extension converse.
13.	Effecting extension flashes switchhook.	All extensions connected.
14.	Effecting extension replaces handset.	Remaining extensions remain connected.

CHART 2-17
AUTOMATIC WAKE-UP (ALARM CALL)

Step	Action	Verification
Extension sets Automatic Wake-up (Alarm Call):		
1.	Extension lifts handset.	Dial tone returned.
2.	Extension dials Automatic Wake-Up access code and Wake-Up time as a 4-digit number (24-hour clock).	Dial tone returned.
3.	Extension replaces handset.	
4.	At selected time:	Extension receives 6 rings every 5 minutes for a total of three attempts. a) Extension receives no tone or receives Music on Hold if provided.
Extension cancels Automatic Wake-up (Alarm Call):		
5.	Extension lifts handset.	Dial tone returned.
6.	Extension dials Automatic Wake-Up access code and 9999.	Dial tone returned.
7.	Extension replaces handset.	

CHART 2-18
MEET-ME CONFERENCE

Step	Action	Verification
To set up a Meet-Me Conference:		
1.	At at prearranged time, dial Meet-Me Conference access code from up to seven extensions.	First extension on hold. First extension hears warning tone as second extension is connected. Extensions in conference hear warning tone as succeeding extensions are connected.

CHART 2-19
AUTOMATIC CALLBACK – DON'T ANSWER

Step	Action	Verification
To set up Automatic Callback – Don't Answer:		
1.	Extension lifts handset.	Dial tone returned.
2.	Extension dials destination.	Destination extension rings.
3.	Extension receives no answer, flashes switchhook.	Dial tone returned.
4.	Extension dials Automatic Callback – Don't Answer code and number of extension called.	Dial tone returned.
5.	Extension replaces handset.	
6.	Called extension uses extension.	Extension goes busy for duration of call.
7.	Called extension replaces handset.	Calling extension rings.
8.	Calling extension lifts handset.	Called extension rings; calling extension hears ringback tone.
9.	Called extension answers.	Conversation takes place.

CHART 2-20
DIRECTED CALL PICKUP

Step	Action	Verification
Any extension is ringing:		
1.	Extension lifts handset.	Dial tone returned.
2.	Extension dials Directed Call Pickup code, and the number of the extension being rung.	Extension is connected to call.

CHART 2-21
STATION CONFERENCE

Step	Action	Verification
1.	Extension lifts handset.	Dial tone returned.
2.	Extension dials first conferee extension for Station Conference.	Called party extension rings.
3.	Called extension answers. Calling extension informs of conference, flashes switchhook and dials second conferee extension.	a) Calling extension and called extension connected. b) Called extension goes on hold. Calling extension receives transfer dial tone. c) Second conferee extension rings.
4.	Second conferee answers.	
5.	Calling extension flashes switchhook.	All extensions connected.
6.	Any extension may add up to a total of seven extensions to the Station Conference by repeating Steps 3(b) & 3(c).	

CHART 2-22
SPEED CALL

Step	Action	Verification
Extension programs a Speed Call:		
1.	Extension lifts handset.	Dial tone returned.
2.	Extension dials Speed Call access code.	
3.	Extension dials 0.	
4.	Extension dials Speed Call Entry access code.	
5.	Extension dials Trunk Group access code or ARS code.	See Note.
6.	Extension dials digits to be used as Speed Call Number.	See Note.
7.	Extension replaces handset.	
To verify programmed number:		
8.	Extension dials Speed Call access code.	
9.	Extension dials Entry Access Number and manual digits if required.	If the call is successful, ringback tone will be returned from the CO and the correct number will be rung.

Note: ✳1 for 5 second pause, ✳2 for Wait for Dial Tone, or ✳3nn for user-dialed digits may be entered at any time.

CHART 2-23
SAVED NUMBER REDIAL

Step	Action	Verification
Extension programs a last number redial:		
1.	After completion of dialing an outside number, the extension has 10 seconds to dial an *. This will store the dialed number in the last number redial.	
To use Saved Number Redial:		
2.	Extension goes off-hook.	Dial tone returned.
3.	Extension dials Speed Call Feature access code.	
4.	Extension dials Entry Access Number for saved number redial.	Saved number dialed rings.

CHART 2-24
EXTERNAL CALL FORWARDING

Step	Action	Verification
Extension wishes to transfer all calls to an external number:		
1.	Repeat Steps 1-7 of Chart 2-22. (Note: It is possible to use manual digit insertion.)	
2.	Extension lifts handset.	Dial tone returned.
3.	Extension dials the External Call Forwarding access code.	No tone returned.
4.	Extension dials Speed Call access code and Speed Call Entry access code from Step 1.	Dial tone returned.
To verify External Call Forwarding:		
5.	From an alternate extension dial the External Call Forwarded extension.	If the External Call Forwarding is successful, the external number will be rung.

CHART 2-25
CALL FORWARDING BUSY/DON'T ANSWER

Step	Action	Verification
Extension wishes to have Call Forwarding Busy/Don't Answer active at the same time:		
1.	Extension lifts handset.	Dial tone returned.
2.	Extension dials Call Forwarding Busy/Don't Answer code.	No tones returned.
3.	Extension dials extension number, calls are to be forwarded to.	Dial tone returned; all calls will be forwarded.
To test Call Forwarding Busy/Don't Answer:		
4.	Repeat Steps 4, 5 and 6 of Chart 2-5, and Steps 4 and 5 of Chart 2-6.	

CHART 2-26
HANDS-FREE

Step	Action	Verification
Extension wishes to place itself in a Hands-Free state:		
1.	Extension lifts handset.	Dial tone returned.
2.	Extension dials Hands-Free access code or remains off-hook for 15 seconds.	No tone returned; extension now in Hands-Free state.
3.	To remove extension from Hands-Free state, return handset to on-hook position.	Extension will be rung normally.

CHART 2-27
TRANSFER WITH PRIVACY

Step	Action	Verification
An extension wishes to consult with two parties privately, with the option of connecting them both together by going on-hook:		
1.	Extension is conversing with first party.	Normal conversation.
2.	Extension flashes the switchhook.	Dial tone returned.
3.	Extension dials new extension number.	Ringback tone returned, and extension converses privately when call is answered.
4.	Extension flashes switchhook and returns to original party. Extension may alternate between parties privately by flashing the switchhook.	Private conversation between original party and extension.
5.	Extension returns the handset to the on-hook position.	Both parties may now converse.

CHART 2-28
REPEATED CAMP-ON

Step	Action	Verification
By enabling the appropriate COS and System Option, an extension or trunk will remain camped-on to an extension and have the camp-on warning tones repeated (programmable - every 5, 10 or 15 seconds).		
1.	Establish a 2-party call.	
2.	Alternate extension lifts handset.	Dial tone returned.
3.	Dial extension in 2-party call.	Busy tone returned.
4.	Calling extension remains off-hook for more than 10 seconds.	a) Calling extension (after 10 seconds) receives a change in busy tone. b) The dialed extension receives a short warning tone.
5.	Calling extension remains off-hook.	The dialed extension continues to receive warning tones (every 5, 10 or 15 seconds as programmed).
6.	Dialed extension hangs up.	The dialed extension is rung; dialing extension receives ringback tone. Answer call; ensure 2-party call.

APPENDIX 1
SUPERSET 4
TEST PROCEDURES

A1. GENERAL

A1.01 This Appendix describes the test procedures for the SUPERSET 4. These procedures should be performed as operational tests upon installation of a SUPERSET 4, after the initial system installation. Refer to the appropriate MITEL practices Table A1.1-1 for system installation instructions and Feature descriptions.

A1.02 This Appendix has been issued to incorporate all information required to check out a SUPERSET 4 after installation.

A2. TEST AND OPERATIONAL PROCEDURES

GENERAL

A2.01 Satisfactory completion of the test procedures confirms correct key operation, liquid-crystal display activation, hookswitch functioning, and speaker output, and checks that the set has been installed correctly.

A2.02 When a SUPERSET 4 has power applied to it (i.e. is just connected to an operating system) or the system has just been powered-up, SUPERSET 4 is displayed for approximately 1 minute. Then the display clears to time and date.

A2.03 If any test fails, verify that the system is installed correctly and is powered-up.

A2.04 Perform the tests listed in Table A1.2-1 at each SUPERSET 4.

TABLE A1.1-1
RELATED MITEL PRACTICES

SECTION NO.	TITLE
MITL9105/9110-090-100-NA	General Description
MITL9105/9110-090-107-NA	SUPERSET 4 Features and Services Description
MITL9105/9110-090-200-NA	Shipping, Receiving, and Installation Instructions

TABLE A1.2-1
INSTALLER LOOP TEST ROUTINES

Step	Action	Verification	Notes
Accessing Test Routines			
1.	Go off-hook (handset or hands-free)	- Dial tone returned. - Line status display indicates line busy at this set.	1
2.	Dial Loop Test Access Code	- "TEST! PRESS KEYS" displayed.	2, 3
Keypad Test			
3.	Press keys 1-9, *, 0, and # in turn	- DTMF tones are heard through handset or speaker. - a 2-digit number is displayed, as follows: Key Pressed / Number Displayed 1 / 01 2 / 02 3 / 03 4 / 04 5 / 05 6 / 06 7 / 07 8 / 08 9 / 09 * / 10 0 / 00 # / 11	
Supplementary Feature Buttons Test			
4.	Press the "display", "display features", "speaker on/off", and "mic. on/off" buttons in turn.	A 2-digit number is displayed as follows: Button Pressed / Number Displayed display / 12 features / 13 speaker on/off / 14 mic. on/off / 15	4 5 6

TABLE A1.2-1 (CONT'D)
INSTALLER LOOP TEST ROUTINES

Step	Action	Verification	Notes
Feature Select Buttons and Features Display Test			
5.	Press each of the feature select (unmarked) buttons in turn.	The prompts above each button are activated, and a 2-digit number is displayed. See Figure A1-1.	7
6.	Press the display features button.	Supplementary feature names are activited (see Figure A1-1).	8
Line Select Buttons, Hold Button, Line Status Display, and Tone Ringer Test			
7.	Press the red hold button and each line select button in turn	- The line status display next to each button (except hold) is activated to indicate an incoming call (alternating square/circle format). - A 2-digit number is displayed, as follows: hold button = 30 to upper line select button = 45 - The tone-ringer sounds when the upper line select button is pressed.	
Hookswitch Test			
8(a)	If the tests are run with the handset on-hook, lift the handset.	"HANDSET UP" displayed	
(b)	Press the "speaker on/off" button, and replace the handset.	Number 14 displayed, then "HANDSET DOWN" displayed.	
9(a)	If the tests are run with the handset off hook, replace handset.	"HANDSET DOWN" displayed.	
(b)	Lift handset.	"HANDSET UP" displayed.	

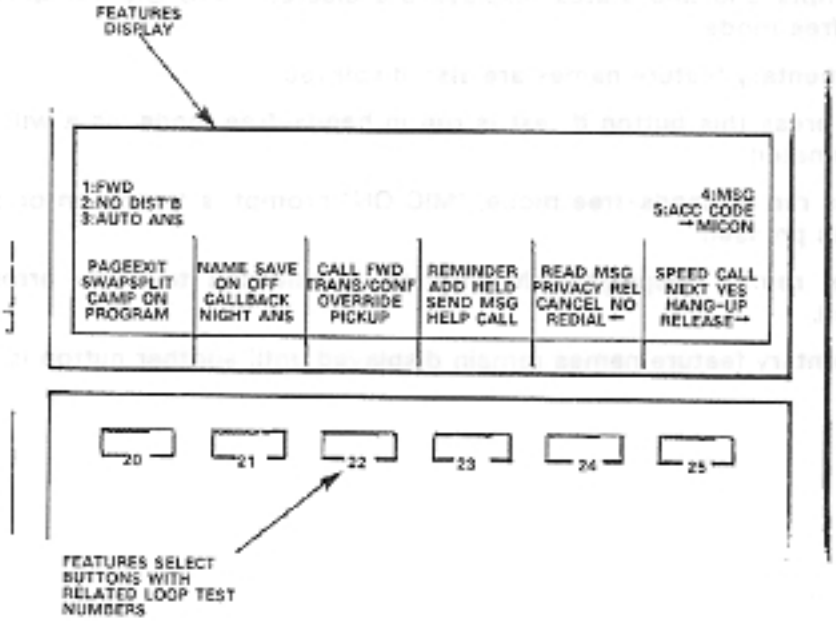


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Figure A1-1 Feature Select Buttons and Features Display Test

TABLE A1.2-1 (CONT'D)
INSTALLER LOOP TEST ROUTINES

Step	Action	Verification	Notes
Terminating Test Routines			
10.	If the tests are run with the handset on-hook, press the "speaker on/off" button, or if the tests are run with the handset off-hook, replace the handset.	Set becomes idle; time and date are displayed.	

Notes:
1. If test is run in hands-free mode, "MIC ON" is displayed.
2. Access code is found in the relevant switch practice.
3. All prompts and line status displays are cleared. "MIC ON" remains if test is run in hands-free mode.
4. Supplementary feature names are also displayed.
5. Do not press this button if test is run in hands-free mode, as it will cause the test to be terminated.
6. If test is run in hands-free mode, "MIC ON" prompt is turned on or off each time this button is pressed.
7. Prompts remain displayed after button is released to allow error patterns to be detected.
8. Supplementary feature names remain displayed until another button is pressed.

APPENDIX 2

SUPERSET 3

TEST PROCEDURES

A2.1 GENERAL

A2.1.01 This Appendix describes the test procedures for the SUPERSET 3. These procedures should be performed as operational tests upon installation of a SUPERSET 3, after the initial system installation. Refer to the appropriate MITEL practices Table A2.1-1 for system installation instructions and Feature descriptions.

Reason for Issue

A2.1.02 This Appendix has been issued to incorporate all information required to check out a SUPERSET 3 after installation.

A2.2 TEST AND OPERATIONAL PROCEDURES

General

A2.2.01 Satisfactory completion of the test procedures confirms that the set has been installed correctly.

A2.2.02 When a SUPERSET 3 has power applied to it (i.e. is just connected to an operation system) or the system has just been powered-up, the test outlined in Table A2.2-1 is automatically performed.

A2.2.03 If any test fails, verify that the system is installed correctly and is powered-up.

TABLE A2.1-1
RELATED MITEL PRACTICES

Section No.	Title
MITL9105/9110-090-100-NA	General Description
MITL9105/9110-090-107-NA	SUPERSET 3 Features and Services Description
MITL9105/9110-090-200-NA	Shipping, Receiving, and Installation Instructions

TABLE A2.2-1

Test	LED			Timing
	1	2	3	
1	ON	ON	ON	1 second all on
2	FLASHING	OFF	OFF	10-15 seconds
3	OFF	OFF	OFF	if set is on hook
OR	ON	OFF	OFF	if set is off hook
				10 to 15 seconds

Note: If all LEDs turn on steady for more than a few seconds there is an error. Check wiring then try a known good spare.